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**An examination of the trans-nationality and applicability of  
Nonaka's theory of organizational knowledge creation to  
urban regeneration in UK**

Yoshimichi ADACHI

The Bartlett School of Planning  
Faculty of the Built Environment  
University College London  
University of London

Submitted in fulfilment of the requirement for the award  
of the degree of Doctor of Philosophy

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## Abstract

General awareness of a knowledge-based society and the academic interest in knowledge management (KM) in the field of organization studies have both intensified in recent years. However, research into ‘knowledge’ has, to date, received scant attention in the field of the urban regeneration process. This fact has greatly motivated this thesis, whose main objective is “*to examine the trans-nationality and applicability of Nonaka’s theory of organizational knowledge creation to urban regeneration in UK*”.

After having introduced TEAM linguistic theory into the examination of the validity of the hypotheses of this thesis (see Chapter 2), the trans-nationality and applicability of Nonaka’s theory are examined in the KM context of UK in particular - in both a theoretical and practical sense (see Chapter 3). Because there is no comprehensive theoretical framework which allows for a comparison to be made between urban regeneration theories and Nonaka’s theory, from either an epistemological or ontological point of view, this thesis has looked in great depth into *urban planning theory*, rather than any literature on the theories of urban regeneration. It in particular, examines two sets of *procedural theories of urban planning*, namely; *Systems Theories and Rational Theories of Planning* (see Chapter 4), and *Communicative Planning Theory* (see Chapter 5).

In order to examine the applicability of Nonaka’s theoretical frameworks to the empirical context of urban regeneration in the UK, case study research was conducted using the Creative Town Initiative (CTI) in Huddersfield (see Chapter 6) from which important generic and context specific conclusions have been drawn (see Chapter 7).

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## **CHAPTER 1: INTRODUCTION**

### **1.1 Setting the scene**

#### **1.1.1 Rediscovery of the urban problem**

Although the British planning system established in 1947 remains the framework for land-use planning and the development and control elements of urban policy, it has had to adapt to changing social conditions. The ‘rediscovery of poverty’ in the 1960s, together with the high concentrations of impoverished racial minorities and immigrants in urban areas, has widened the focus and purpose of urban policy, from purely land-use planning to programmes designed to advance economic and social progress, as well as physical and environmental development (see e.g. Hill, 2000). By the mid-1960s, it was already apparent that many cities in the UK, especially inner-cities,<sup>1</sup> faced considerable difficulties, leading to economic decline, increased unemployment, low investment, physical dereliction of vacated areas and growing dissatisfaction with slum clearance and its accompanying social problems such as poverty, poor health, social exclusion, high crime rates and large numbers of one-parent families (see e.g. Barnekov et al., 1989; Atkinson & Moon, 1994; Hambleton & Thomas, 1995; Taylor, 1998).

#### **1.1.2 Political responses to urban problems**

##### ***The emergence of urban policy initiatives***

The ‘rediscovery’ of urban problems in inner-cities in the late 1960s led to the establishment of new urban policy initiatives such as the Urban Programme (1968) and the Community Development Projects (CDPs) (1969) devised by the Home Office and the Inner Area Studies (1971) set up by the Department of the Environment (DoE). The Urban Programme, for example, aimed to direct central government resources to areas experiencing severe deprivation, in particular the immigrant communities and provided special grants for up to 75 per cent of the approved expenditure of projects. The emphasis of the Urban Programme was ‘initially on capital rather than recurring

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<sup>1</sup> The concept of ‘inner-city’ is difficult to define. Hill (2000, p21), for example, broadly defines it as ‘a place, a geographical locality marked by physical and economic decline’, acknowledging that it includes not only the city core, but also the manufacturing and residential areas around the commercial centre.

expenditure, on experimental or innovative projects supplementing the main programmes, and on educational projects' (Home Office 1982, p7, cited in Barnekov et al., 1989). The CDPs were also 'a neighbourhood-based experiment aimed at finding new ways of meeting the needs of people living in areas of high social deprivation' (Home Secretary James Callahan speaking in Parliament; cited in Barnekov et al., 1989). The programmes started with the local authorities of Coventry, Liverpool and Southwark and by the early 1970s had grown to 12 areas. The emphasis of this project was on community participation and self-help, the improvement of partnerships between communities and local government, better integration and coordination of government services and the use of research to provide information for action and for the monitoring and evaluation of policies (see e.g. Barnekov et al., 1989; Atkinson & Moon, 1994; Imrie & Raco, 2003). Both the Urban Programme and the CDPs were, unlike the universality of land-use planning, characterized as *selectivism* and *positive discrimination*, selectively targeting deprived areas with high concentrations of population living in acute poverty (see e.g. Barnekov et al., 1989; Atkinson & Moon, 1994; Hill, 2000). These initiatives also focused on community development and the regeneration of people and place. For example, in 1968 the Home Office (Home Office, 1968) commented that the regeneration of British cities depended on the growth of persons in the community and the need to develop the awareness of interdependence (see Imrie & Raco, 2003). The emergence of such programmes suggested that the urban policy framework, which focuses on land-use planning and development control, could not adequately deal with the complexity of late twentieth century urban problems.

### ***The impact of the urban initiatives***

The impact of urban initiatives such as the Urban Programme and the CDPs, remained modest and largely isolated from mainstream urban policy in housing, planning, transportation and other infrastructure developments (see e.g. Barnekov et al., 1989; Atkinson & Moon, 1994; Hill, 2000). Moreover, although racial issues were a catalyst of policy, racial disadvantage and exclusion were rarely addressed directly (Hill, 2000). Several commentators pointed out the reasons for the dissatisfactory results of these



urban initiatives (see e.g. Stewart et al., 1976; Atkinson & Moon, 1994; Hill, 2000; Imrie & Raco, 2003). For example, many commentators, such as Atkinson & Moon (1994) and (Hill, 2000), argue that funding was relatively small-scale and time-limited. Stewart et al. (1976) highlighted the absence of experienced or high-quality professionals and the problem of policy which tailored programmes to 'standard' families and communities. Imrie & Raco (2003) also stress that although particular groups or associations were located and harnessed, the programmes were usually carried out at the initiative of top-down agencies, such as the local authority. There was also no cooperation and agreement between area teams and central and local government (see Hill, 2000). Indeed, the CDPs ended in 1976 after clashes between area teams and local and central government over differing perspectives and priorities (see Barnekov et al., 1989; Hill, 2000). Moreover, although by the early 1970s the urban policy initiatives remained, mainly focused on the physical regeneration of particular urban areas, at that time there was disagreement on the targeting approach to urban problems. Indeed, the progress of various urban studies led policy-makers and government officers to acknowledge the importance of the shift in the focus of urban policy from a preoccupation with social pathology (such as focusing on the personal and family characteristics of the poor) to basic economic causes or economic restructuring (see Barnekov et al., 1989; Hambleton & Thomas, 1995; Hill, 2000).

### ***The 1977 White Paper: Policy for the Inner Cities***

From the mid-1970s onwards, urban problems have remained high on the political agenda and central government has made determined efforts to address urban decline (see e.g. Hill, 2000). The Labour government's 1977 White Paper, *Policy for the Inner Cities* (Cmnd 6845) not only linked urban decline to mainstream urban planning, including housing and industrial location for the first time, but also *officially* shifted the focus of solutions to the urban problem from social service orientation to economic urban regeneration and in doing so acknowledged 'the erosion of the inner city economy and shortage of private investment' (DoE, 1977: Para. 5). It also highlighted the importance of a coherent approach to urban problems, paying attention to a new,

closer form of collaboration between the public and private sector, thereby enlarging the role of local authorities in urban economic development. However, despite the recommendations of the White Paper, the following urban regeneration initiatives including the Inner City Partnerships did not include representation from the business community or the voluntary sector but were dominated by local authorities (Robinson & Shaw, 2001), and it continued to focus still on physical development (see e.g. Barnekov et al., 1989). Moreover, the ability of the government to facilitate economic urban regeneration initiatives was called into question because neither central nor local government officials had first-hand experience in promoting local industry or commerce (see e.g. Barnekov et al., 1989). In this sense, although urban regeneration initiatives in the late 1970s mainly focused on economic regeneration, they remained fragmented, rather than coherent, in their application (see e.g. Hill, 2000).

### **1.1.3 New Right approach to urban regeneration**

#### ***Property-led urban regeneration***

The consideration of community issues was less important by the late 1970s and the 1980s saw a continuation of state attention to the economic issues surrounding urban regeneration policies. Indeed, the then Conservative government introduced a different approach; namely, *a New Right (or Neo-liberal) approach*, to dealing with urban problems and promoting urban prosperity (see e.g. Thornley, 1993, Allmendinger & Thomas (eds.), 1998; Allmendinger, 2002). This approach was fundamentally characterised by an extensive reliance on marketplace institutions and a moralisation of individuals and its implementation came in the form of *property-led urban regeneration* (see e.g. Barnekov etc, 1989; Turok, 1992; Healey et al. (eds.), 1992; Imrie and Thomas, 1993; Ginsburg, 1999). This commitment resulted in efforts to deregulate urban economic activity, the promotion of central control and direction, (the reduction of the role played by local authorities) and giving primacy to the private sector, which selectively dismantled urban planning systems. Local residents and inner city communities were not involved in the regeneration process, but were just passive recipients of programmes, which were generally of little benefit to them (Imrie &

Thomas (eds.), 1993). Expenditure on the Urban Programme was reduced over the course of the 1980s.

### ***Urban Development Corporations***

The setting-up of the Urban Development Corporations (UDCs) in 1981 was exemplified as the New Right approach, which was intended to transfer physical and economic regeneration powers and responsibility from local authorities to quasi-nongovernmental organisations (Quangos) and provide development opportunities for the private sector. These agencies therefore were property-led, anti-democratic, technocratic and run by 'boards of the moderately great and good, together with a few safe councillors' (see Robinson & Shaw, 2001). In other words, funding was made available for property-led projects that tended to prioritise economic development and business interests over those of local residents and community groups (see Imrie & Raco, 2003). The abolition of the Greater London Council (GLC) and Metropolitan Counties in 1986 and the establishment of Enterprise Zones in 1981 and Simplified Planning Zones in 1986, which were created by the government of the day in order to bypass democratically elected local councils, which were regarded as slow and restrictive institutions for urban economic regeneration, reflected the view that the private sector was the principal agent of urban change. Behind the New Right approach there also lay a strong recognition of the necessity for cities to make a rapid transition from the industrial to the post-industrial age (see e.g. Barnekov et al., 1989). In other words, the government believed that it was crucial to realign institutional and technological infrastructure in a city away from intensive reliance on industrial manufacturing towards a new and more globally competitive service-oriented, post-industrial, technologically advanced economy.

### ***The outcome of the property-led regeneration initiatives***

The judgement of the effectiveness of property-led regeneration initiatives promoted by the Conservative government has, however, been mixed. Although the legacy of urban dereliction was effectively addressed, considerably improving urban physical conditions,

the approach has attracted much critical attention (see e.g. Barnekov et al., 1989; Turok, 1992, Healey et al. (eds.), 1992; Imrie and Thomas, 1993; Ginsburg, 1999, Imrie & Raco, 2003). For example, Turok (1992) argues that it is questionable whether it effectively creates employment for the socially disadvantaged by means of the supply-side, 'trick down' economic solutions. Barnekov et al. (1989) claim that property-led urban regeneration fails to recognise the importance of the role of local government in co-ordinating urban regeneration policy. Moreover, Ginsburg (1999) points out that it gives relatively little focus on the social aspects of urban regeneration and tends to exclude local communities. Likewise the House of Commons Select Committee on Employment (1989) suggested that 'UDCs cannot be regarded as a success if buildings and land are regenerated but the local community are bypassed and do not benefit from regeneration' (cited in Imrie & Raco, 2003). Partnerships were formed between powerful corporate interests that had little interest in encouraging grass-roots participation.

### ***Division and polarisation of cities***

Furthermore, in the late 1990s a series of reports were published which outline the strengths and weaknesses of urban regeneration policies conducted by the Conservative government. For instance, while the research conducted by the Department of Social Security (1997) shows that in the mid-1990s the number of people living on well-below the average income level was 13.7 million, a study by Goodman and his colleagues (1997) shows that the UK has become 'massively' more unequal than it was 20 years ago (see Hill, 2000). The implication of this is that under the Conservative government, urban problems, such as poverty or social exclusion, remained unsolved and continue to divide and polarise cities and the people who live in them. It also did little to tackle an endemic shortage of affordable housing, job insecurity, and the proliferation of low-waged employment.

### ***Competing Funding system***

Through the early 1990s, a shift towards community participation, partnership and empowerment occurred in urban policy, albeit within the context of competitive bidding programmes (see Imrie & Raco, 2003). Funding systems such as City Challenge in 1991 were introduced by Environment Secretary Heseltine to engender the spirit of competitive enterprise and innovative thinking, through encouraging towns and cities to compete for government funding.<sup>2</sup> It ran in 31 areas across the country, managed by local partnership. City Challenge partnership boards had to include the public, private and voluntary sectors and, most significantly, the local community (see Robinson & Shaw, 2001). The Major administration took a *localist* approach, in which local policy makers were encouraged to construct local strategies to develop a degree of co-ordination and control of policy. For instance, the Single Regeneration Budget (SRB) system for urban regeneration introduced by April 1994 enables and encourages partnerships between business, local and central government, the voluntary sector, and local people. SRB has generally spread resources more widely and more thinly, so that it has produced a great number of local partnerships. This policy also aimed at overcoming the 'patchwork quilt of complexity' of previous regeneration efforts, which was strongly criticised by the Audit Commission (Audit Commission, 1989), emphasizing the importance of a coherent strategy.

### ***Partnership approach***

These urban regeneration initiatives suggest that collaborative action based on public-private partnerships became one of the central issues of urban regeneration and that the focus of urban regeneration policy shifted from a property (physical)-based approach to a *people-based (not person-based) approach*. Indeed, the Conservative government of the time remarked that regeneration could be best be achieved by talking 'to the people who live and work in those areas' (DoE, 1991). In this sense, as Oatley

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<sup>2</sup> David Curry MP stated 'more than any other initiative, the Challenge Fund, and City Challenge before it, have captured the imagination and encouraged a new vigorous approach to tackling some of the most difficult problems of our towns and cities' (Public Sector Information Ltd, 1996, P3).

(1998) points out, the Single Regeneration Budget, the Challenge Fund and City Challenge radically altered the way in which urban (regeneration) policies were formulated, funded and administered to address problems of urban decline and social disadvantage. However, through the 1980s and the 1990s the condition of many of the worst affected areas has not improved and it has actually worsened. Moreover, in spite of the continued refinement of programmes in the light of experience, concerns remained regarding 'the need for a longer-term, more strategic, integrated and sustainable approach to urban regeneration' (see e.g. Carter, 2000).

#### **1.1.4 Urban regeneration policies of the New Labour government**

##### ***Politics of the third way***

The Labour's election victory in 1997 promised a new political approach, often called 'the third way' (see e.g. Blair 1998; Giddens, 2000). Although the terms 'the third way' cover quite broad meanings, this can be broadly summarized as the 'the political position taken between the post-war welfare state with strong government intervention and *laissez faire* capitalism emphasising unbridled individualism (see Giddens, 2000 for more details). According to Giddens (2000), the third way is especially relevant to the UK because the UK has experienced (the failure of) both political systems. The third way is also interpreted as the reconciliation of 'themes wrongly judged antagonistic -patriotism and internationalism, rights and responsibilities, the promotion of enterprise and the attack on poverty and discrimination' (Hill, 2000, p63). In other words, the third way seems to be the political approach which tries to take a balance between allegedly contradictory or antagonistic notions. The other key concept of the New Labour government is 'modernization'. Tony Blair in the Labour Party Manifesto for the 1997 General Election stated "New Labour is a party of ideas and ideals but not of outdated ideology. What counts is what works. The objectives are radical. The means will be modern". Although the term 'modernization' is often interpreted as a technocratic (bureaucratic) style of policy-making in the sociological sense (see e.g. Weber, 1985), it is apparent from Blair's statement that New Labour uses the word in a quite pragmatic sense and it seems to mean to radically change the democratic system to work in a

modern (current) context. A 'what works philosophy' in the name of modernization does not just mean pursuing best value. It also requires the restructuring of the relationship between civil society and the state. For example, it is assumed that by shifting the power and responsibility from the state to citizens and local communities, the quality of local political decisions and implementations should be enhanced (see e.g. Giddens, 2000; Blunkett, 2001).

### ***Urban regeneration policies of the New Labour government***

Such Labour principles are reflected in its urban regeneration policy, which is one of the highest priorities of the reformist agendas of the Labour government. This is because, as many point out (see e.g. Brenner & Theodore, 2002; Jessop, 2002; Raco 2003), the negative impacts of neo-liberal programmes on everyday lives, including the highest concentrations of poverty and inequality, as well as quality of life and environmental issues, are experienced most strongly in urban communities. In December 1997, the Labour government established the Social Exclusion Unit (SEU) in the Cabinet Office with the objective of what the Prime Minister called a 'joined up' solution to joined-up problems, working across functional and departmental boundaries in Whitehall. Its early tasks were to examine the problems of school truancy and exclusion, rough sleepers and the condition of the 2000 or so worst council housing estates. '*Bringing Britain Together – a national strategy for neighbourhood renewal*' published by SEU in September 1998, showed an understanding of the complexity and multi-dimensionality of social exclusion problems and the need for long term government strategies for tackling urban problems such as poverty, unemployment, poor health and crime. The report also emphasised the importance of integrated strategies, improving employment prospects for tenants, support for those with mental health and other problems, improving community protection and developing neighbourhood management initiatives. This active initiative suggests that from its first stage, the New Labour government had at least a clear intention of addressing social exclusion problems seriously.



### ***Targeting the most deprived areas***

One of the distinctive features of urban regeneration initiatives taken by the New Labour government is to target the most deprived areas, an approach that is not new and, as mentioned earlier, goes back to the 1969 Urban Programme. The priority issues are diverse, including employment, health, education and housing (see Home Office, 2001a), and this has led to the plethora of founding regimes. For example, Labour's first term produced many area-based initiatives (ABIs), such as Health Action Zones (HAZs), Employment Action Zones and Education Zones through which it is assumed deprivation and poverty in neighbourhoods were alleviated. These attempts of targeting the most deprived areas are well demonstrated by the New Single Regeneration Budget (SRB) and New Deal schemes. In the New SRB, with bidding by localities that was inherited from the Conservative government but reshaped, four-fifths of total resources were to be spent in the 65 most deprived local authority areas. The New Deal for Communities (NDC), launched in 1998, also targets 39 deprived areas, but on a neighbourhood scope of 1,000 – 4,000 people and has a budget of £2 billion over 10 years. The initiative focuses on programmes which develop every local service such as employment, education, crime, health, social work and housing.

### ***Local partnership approach***

Targeting is not only a solution for the New Labour government. The government also requires local government to use its powers to enable a co-ordinated local approach, rather than to control local policy and delivery. In other words, each local area-based urban regeneration scheme comprises local partnerships involving residents, community organizations, voluntary organizations, local authorities and local businesses in each eligible area, seeking to go beyond existing processes. In this sense, although a collaborative partnership approach was taken by successive Conservative governments in the 1990s, the New Labour government has expanded it, paying far more attention to social aspects of urban problems.

### ***Community involvement***

The Labour government also places an even greater emphasis on local community

involvement. For example, to obtain the funding for projects, the New SRB requires as a condition the direct involvement of local communities. Moreover, government guidance on setting up NDCs also states that:

*Proposals which are imposed on communities won't work and won't be supported under the NDC. We want to ensure that all individuals and community groups affected by the proposals are fully engaged in their planning and their implementation (DETR, 1999b).*

In other words, with these programmes, local people are supposed to be identifying their own priorities and making their own future, supported by government. In this sense, as Robinson & Shaw (2001) suggest, although partnership boards with representation from the public, private, voluntary and community sectors are running local regeneration programmes, the government intends to enable the communities to have real power at the centre of policy-decision making. The shift in urban regeneration policy towards community involvement has led to the issue of capacity-building, which will be discussed later. The New Labour government assumes that the government can only provide minimum standards and equality of opportunity, but does not have the intention of redistributing or to realizing equality of outcome (see Hill, 2000). In other words, although 'help' is targeted on the most deprived, who would otherwise risk exclusion from society, this will not depend solely on additional resources, but on helping with work and training opportunities and be matched by obligations on those receiving help.

### ***The effectiveness of the New Labour approach***

Although it is too early to evaluate the impact and effectiveness of the New Labour's urban regeneration initiatives, some issues on the New Labour approach to urban regeneration can be discussed. Firstly, there is a contradiction in the empowerment to local people or community. This is that, despite the rhetoric of empowerment of citizens in local decision-making, there is a trend of increasing political centralization in New Labour government initiatives in urban regeneration (see e.g. Davies, 2002; Imrie & Raco, 2003). For example, a range of supra-local organizations including Local Strategy Partnerships (LSPs) and Regional Development Agencies (RDAs) operate under central government control and guidance. Secondly, the practices of urban regeneration initiatives suggest that there is a difficulty in carrying out regeneration programmes

based on public-private partnerships or community involvement with equal power and social inclusiveness. In many cases, local authorities have simply selected people from the community to sit on partnership boards. These people may not represent the views and concerns of local residents (see Robinson & Shaw, 2001). North (2003) also points out that in reality residents are not seriously involved in the development of planning in the SRB. This may imply that idealistic notions of social inclusion and equal power are impossible to realize. Thirdly, since unlike the assumption of the New Labour government that communities in cities are by their very nature heterogeneous, rather than homogenous, it is difficult to achieve consensus and build shared value (see e.g. Amin, 2002). Fourthly, the approach of place-based communities has some problems, partly because the term 'community' remains a contested concept (see Hill, 1994) and partly because communities cannot be defined by the place. The community, as Raco (2003) argues, cannot be defined a priori in bureaucratic administrative or geographical terms and in reality, there are other types of communities of interest; gender, sexuality, age, economic status and so on. Also, it seems that a vigorous logic or theory is still missing which establishes a strong linkage between urban economic issues and the community involvement or collaborative partnership approach to urban regeneration in the New Labour policy. However, in spite of such difficulty of community involvement in regeneration partnerships, it seems that there exists a fairly broad consensus among the main political parties and practitioners in the field, that the collaborative approach based on public-private partnerships now forms the basis on which successful urban regeneration can be achieved (Bailey, 1995; Hill, 2000; Robinson & Shaw, 2001). This may suggest the need for a different and more workable theoretical base for urban regeneration, which is related to the partnership approach.

### **1.1.5 The research which focuses on 'knowledge' and urban regeneration studies**

#### ***Intensification of interest in 'knowledge'***

At the same time interest in *knowledge* and the development of a *knowledge-based society* have intensified and the terms 'knowledge work' and 'knowledge worker', coined by Drucker in the early 1960s, may become more relevant to the present situation. By extending these notions, Drucker (1993) regarded the society we are living in as 'the knowledge society', in which the basic economic resource is no longer capital,

natural resources or labour, but is and will be 'knowledge'. Apart from the ideas expounded in this earlier work and following general trends in a knowledge-based society, researchers and theorists in the fields of organization studies and strategic management have turned their attention to 'the management of knowledge' in business and the particular characteristics of knowledge workers (see Reich, 1991; Quinn, 1992; Davenport & Prusak, 1998; von Krogh & Roos (eds.), 1996, 1998; Burton-Jones, 1999; Leadbeater, 1999; Castells, 2000). In this emerging field of 'knowledge management' (KM), there have been and still are controversial arguments and different foci as to what constitutes knowledge for an organization or what kind of knowledge an organization needs, and what most researchers and commentators emphasise in their work is, that knowledge has become the main resource of competitive and sustainable advantage for business and even for society. In other words, the majority of the literature concerned with knowledge in an organization claims that the organizations that are most keen to create and utilize knowledge have become successful.

### ***Preliminary definition of 'Knowledge'***

Here, the term 'knowledge' is preliminarily defined as a 'justified true belief', which is the traditional Western definition (see Chapter 2) and it is assumed that there are two types of knowledge; namely, *tacit knowledge* (which refers to highly personal and context-specific knowledge that is acquired through experience and observation) and *explicit knowledge* (which refers to knowledge that is transmittable in formal language). The definition of knowledge is further discussed and developed later.

### ***Little attention to knowledge in the urban regeneration field***

Despite the rapidly growing interest in knowledge and the development of a knowledge-based society in terms of organizational and strategic management, it seems that less attention has been given to the importance of this research in the fields of urban regeneration and its related areas. Although there are, as discussed later (see section 1.4), perspectives related to knowledge which organization studies highlight (urban leadership for instance) in much of the research into urban regeneration, the perspective

of the management of knowledge has not yet been placed as a central focus in the field. Instead, the existing literature, as argued earlier, remains mainly concerned with the examination of the nature of the collaborative partnership approach between the public and private sectors or the community involvement approach to urban regeneration (see e.g. Mackintosh, 1992; Bailey, 1995; Stewart & Snape, 1995; Atkinson, 1999; Carley et al., 2000a; Carter, 2000; Lichfield, 2000; Young, 2000; Anastacio et al., 2000; Purdue et al., 2000; Robinson & Shaw, 2001; Hastings, 2002). For example, from the 1990s onwards many models and typologies of public-private collaborative action in urban regeneration have been established (see e.g. Mackintosh, 1992; Bailey, 1995, Stewart & Snape, 1995), which acknowledge the inevitability of working together through a form of partnership and that this is vital if progress is to be made. The literature also highlights the importance of finding a way of clearly distinguishing between good and bad partnerships and identifying both the strengths (such as provision of an effective mechanism for securing consensus around regeneration strategies and for obtaining the support of the private sector) and the weaknesses (such as its tendency towards a short-term unstrategic approach and of organizational proliferation, and the difficulty of its coordination) in the partnership approach (see e.g. Peck & Tickell, 1994). More recently, research into collaborative partnerships has been extended to focus on the conditions and mechanisms of ensuring the quality and effectiveness of partnerships (such as strengthening community leaders, providing increased time and resources for building participants' capacities, and linking strategy with partnerships)(see e.g. Carter, 2000; Anastacio et al., 2000; Purdue et al., 2000; Carley et al., 2000a).

### ***Little evidence for effective implementation of the partnership approach***

However, it is pessimistic evidence that dominates the results of the partnership approach to urban regeneration. In confirmation of this, Hastings (2002) points out that, although gradual improvements in the partnership approach have been identified from a variety of case studies into urban regeneration practice, apart from later rounds of SRB, there is little evidence that after a decade or more, the partnership approach based on community involvement has made much difference to urban regeneration. This would

suggest that there is a need for more innovative and effective approaches to urban regeneration. Moreover, seen from the perspective of KM, what these urban regeneration studies focusing on the partnership approach fail to acknowledge is that collaborative and co-operative elements represent only parts of the activities by which knowledge creation is facilitated in organizations, resulting in more effective results for those organizations. Despite this, researchers and other parties in the field of urban regeneration have little enthusiasm about connecting urban regeneration studies with research associated with the management of knowledge in the theoretical level. Or, to put it another way, the lack of focus on knowledge in general, and knowledge creation in particular, highlights the limited nature of much of the existing research into urban regeneration.

## **1.2 Research aim, parameters, objectives, and the reasons for choosing Nonaka's Theory**

### **1.2.1 Research aim**

As mentioned earlier, knowledge and knowledge creation have to date received little attention in the literature relating to the urban regeneration process, where the focus has mainly been on the nature and effectiveness of the collaborative partnership approach. Such existing gaps greatly *motivate* this thesis. In an attempt to fill existing gaps and to provide greater understanding of the effectiveness of a collaborative partnership approach to urban regeneration, the broader aim of this thesis is set out as follows;

*An examination of the relationships between knowledge management (KM) theory and the process of urban regeneration in the UK.*

### **1.2.2 Research parameters**

The stated aim leads to the following statements, which are intended to clarify the parameters of this thesis.

- It is intended that the work will converge on a point between the two hitherto distinct aspects of KM and urban regeneration studies.

- The principle theme is the organising of people and management of knowledge in the process of urban regeneration. The work will thus focus heavily on issues such as organizational activities, structures and conditions in relation to knowledge creation.
- The thesis will focus on theoretical dimensions such as epistemology and ontology in order to primarily examine the relationship between the KM theories and the theories related to urban regeneration.
- No attempt will be made in this thesis to deal with wider institutional issues such as a national framework, structures at both regional and national levels and funding systems.
- The substantive issues surrounding urban regeneration, which include Housing, Community, Employment, Education and the like, are not addressed as a central consideration.

### **1.2.3 Research objectives**

In order to keep the research for this work as informative as possible, it is essential to narrow its focus. Therefore the main objective of this research is to make *an examination of the trans-nationality and applicability of Nonaka's theory of organizational knowledge creation to urban regeneration in the UK*. The subsidiary objective of the work is to examine the mechanism and processes through which an urban regeneration strategy is created in terms of Nonaka's theory. A case study will also be conducted to illustrate Nonaka's theoretical frameworks in the actual context of UK urban regeneration.

### **1.2.4 The reasons for applying Nonaka's theory**

#### ***Absence of solid and practical KM theories***

There are a number of reasons why Nonaka's theory of organizational knowledge creation which has been developed through the examination of successful business organizations in Japan (see e.g. Nonaka, 1991, 1994; Nonaka & Takeuchi, 1995), rather than other KM theories developed in the UK, has been chosen as the focus in this



research. Firstly, although the most enthusiastic responses to a society which is knowledge-based come from management theorists in the West (see e.g. Blackler, 1995, Spender, 1996, 1998; Davenport & Prusak, 1998; von Krogh & Roos (eds.), 1996, 1998; Burton-Jones, 1999), no theorist has, so far, been able to shed light on the mechanisms and processes through which knowledge is created and sustained in an organization with both solid theoretical foundations and practical models in the way Nonaka did.

### ***Recognition of the limitation of a fashionable approach to KM in the West***

Secondly, western researchers and commentators have in recent times recognized the limitations of fashionable approaches to KM in the West (such as IT-driven, measurement and database approaches) and realised the significance of a more human-oriented approach reliant on social interaction and collaboration between employees for successfully creating new knowledge (see e.g. von Krogh, 1998; Swan et al, 1999; Robertson et al, 2000; Lam, 2000). This approach shares similarities with the view of knowledge taken by Nonaka. However, although attention has been paid to the dimension of knowledge creation, rather than knowledge diffusion, the stage has not yet been reached where a comprehensive theoretical framework of knowledge creation can be built.

### ***Linkage between Nonaka's theory and research in West***

Thirdly, currently Nonaka's theory itself has been receiving increasing attention in academic circles and among organizational theorists and practitioners not only in the USA, but also in Europe including the UK (see e.g. Blacker, 1995; Davenport & Prusak, 1998; Nahapiet & Ghoshal, 1998; von Krogh, 1998; Baumard, 1999; Leadbeater, 1999; Seufert et al., 1999; Scarbrough et al., 1999; Castells, 2000; Lam, 2000; Swan et al., 2000; Robertson et al., 2000; Johannessen et al, 2001; Walsham, 2001).<sup>3</sup> In addition, Nonaka's theory itself has been developed and more universalised in collaboration with a Swiss academic thinker, applying Nonaka's theory to the European context (see e.g.

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<sup>3</sup> Western scholars such as Davenport and Prusak (1998) as well as von Krogh (1998) regard

von Krogh, Ichijo & Nonaka, 2000). This research includes an examination of Northern European companies such as the Skandia insurance (Sweden), Phonak (Switzerland) and Siemens (Germany) as case studies of the application of Nonaka's theory. All in all, this suggests that even when compared to other KM theories propounded by western theorists, Nonaka's theory has a number of advantages when applied to the research in this thesis.

### **1.3 A brief introduction to Nonaka's theory of organizational knowledge creation**

#### ***The main aim of Nonaka's theory***

Here, the main body of Nonaka's theory, that is, his SECI model, is briefly introduced and the term 'knowledge' as defined by Nonaka is explained. The main aim of Nonaka's theory of organizational knowledge creation is to provide an understanding to how an organization creates the new ideas which may make the organization competitive and sustainable, regarding organizational activities as knowledge activities. In other words, Nonaka sheds light on the mechanisms and processes through which 'new' knowledge is created in an organization with both solid theoretical foundations and practical models. It should be noted that Nonaka's theory focuses on 'organizational' knowledge rather than 'individual' knowledge, although it pays attention to the importance of the knowledge individuals have. Nonaka provides his own epistemology, ontology and conditions that facilitate the processes of knowledge creation within organizations. This section introduces the main body of Nonaka's theory with actual examples.

#### ***Nonaka's epistemology***

Like any approach to knowledge, Nonaka has his own *epistemology (the theory of knowledge)*. Nonaka (Nonaka & Takeuchi, 1995) assumes that there are two distinguished types of knowledge; namely, *tacit* and *explicit knowledge* (see Table1-1).

Table1-1: Two types of knowledge (Source: Author based on Nonaka & Takeuchi, 1995)

<b>Tacit knowledge</b>	<b>Explicit knowledge</b>
Subjective knowledge Knowledge of experience Context-specific knowledge Simultaneous knowledge (Here and now) Analog knowledge (Practice)	Objective knowledge Knowledge of rationality Universal knowledge Sequential knowledge (There and then) Digital knowledge (Theory)

According to Nonaka, *tacit knowledge*, on the one hand, is highly personal, subjective and context-specific knowledge, and includes skills, beliefs, perceptions, ideals, values, emotions and mental models. This type of knowledge is hard to formalize and communicate and therefore cannot or may not be articulated by written words or spoken language. The most effective way to acquiring and exchanging this knowledge is through non-verbal communication, such as sharing experience, being together and observing something or someone directly. That is why this knowledge is called ‘knowledge of experience’. *Explicit knowledge*, on the other hand, objective, rational knowledge, is transmittable in formal, systematic language. In other words, it can be codified and expressed in words, numbers and diagrams and shared in the form of data, scientific formulae, manuals and the like.

### ***Nonaka’s ontology***

Because Nonaka is concerned with organizational, rather than individual, knowledge creation, his theory also establishes its own *ontology (locus of knowledge)*. Nonaka assumes that the entity of having or creating knowledge lies both in *individuals* and the *collective*, which will be described in detail in Chapter 2.

### ***SECI model<sup>4</sup>***

Nonaka establishes an organization model of knowledge creation based on the above dualistic epistemology and ontology. In other words, Nonaka assumes that when human

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<sup>4</sup> SECI stands for Socialization, Externalization, Combination and Internalization.

beings, either individually or collectively, acquire, create, exchange and expand knowledge, interaction between tacit and explicit knowledge occurs. He refers to this as *knowledge conversion*. Human beings tend to convert between tacit knowledge and explicit knowledge in their knowledge activities. It should be noted that this conversion is mainly a ‘social’ process between individuals and is not confined within an individual. The assumption that knowledge is organizationally created through the interaction between tacit and explicit knowledge lead to four different modes of knowledge conversion (*four modes of knowledge conversion*), which include (1) the *Socialization* mode, (2) the *Externalization* mode, (3) the *Combination* mode and (4) the *Internalization* mode (see Figure 1-2). He called this the *SECI model*. While each of these four modes of knowledge conversion will be explained along with actual examples later, Table 1-2 summarizes Nonaka’s SECI model.

Table1-2: Nonaka’s SECI model: Four modes of knowledge conversion (Source: Author)

Knowledge conversion mode	Form of knowledge conversion	Character	Example
<b>Socialization mode</b>	Tacit knowledge ↓ Tacit knowledge	Sharing and accumulation of context-specific knowledge	Informal meeting (e.g. in pub or hotel)
<b>Externalization mode</b>	Tacit knowledge ↓ Explicit knowledge	Expressive externalization of context-specific knowledge	Concept-making
<b>Combination mode</b>	Explicit knowledge ↓ Explicit knowledge	Combination of new and existing knowledge	Computer analysis
<b>Internalization mode</b>	Explicit knowledge ↓ Tacit knowledge	Internalization of explicit knowledge	Manual memorizing, education

### ***Examples of the socialization mode***

*The socialization mode* (from tacit to tacit knowledge conversion) is the process of acquiring, exchanging or sharing context-specific *tacit knowledge* such as other’s thinking, emotions or mental models. In this mode, tacit knowledge can be acquired without using language but, for example, by sharing experiences. An example of the socialization mode is informal meetings, in particular ‘brainstorming camps’, which are

often held in Japanese companies to create a new product or when facing difficult problems. This usually takes place outside of the workplace, often at a resort inn, with a relaxed and friendly atmosphere while drinking *sake* (alcohol) and sharing meals. Such an informal meeting is particularly effective in mediating participants' different opinions or ideas, reorienting the mental models of all individuals in the same direction, but not in a forceful way. It also tends to enhance mutual trust among participants, that is, sharing of tacit knowledge. In other words, informal meetings represent a mechanism through which individuals search for harmony by engaging themselves in bodily as well as mental experiences. The socialization mode of knowledge conversion also occurs between product developers and customers. NEC, a leading Japanese electronics manufacturer, established NEC's BIT-INN, a display service centre in the Akihabara district of Tokyo, which is famous for its high concentration of electronic goods retailers, like Tottenham Court Road in London (see Nonaka & Takeuchi, 1995 for more details). Sharing experiences and continuing dialogues with these customers at the BIT-INN resulted in the development of NEC's best-selling computer, the PC-8000, a few years later. This example shows NEC *socialized* itself with consumers' needs, which allowed it to acquire context specific, tacit knowledge. Another example of the socialization mode is Nissan, the Japanese automobile manufacturer (see Nonaka & Takeuchi, 1995 for more details). During conducting a project to make a 'global car' for mainly European customers, Nissan sent nearly 1,500 people from the planning, design, testing, production and marketing departments to Europe to acquire context-specific (tacit) knowledge about the European automobile market, motoring culture and road conditions, knowledge which could only be acquired through directly experiencing Europe.

### ***Examples of the externalization mode***

The second mode of knowledge conversion is *the externalization mode* (from tacit to explicit knowledge conversion), which is a process of articulating tacit knowledge into explicit concepts. This takes the form of metaphors, analogies, concepts, hypotheses or models, but is typically seen in the process of *concept creation*. An example of the

externalization mode is the concept creation of the Honda City (see Nonaka & Takeuchi, 1995 for more details). In developing a car in Honda, the team members creating the concept of the new car firstly came across the metaphor of 'Automobile Evolution'. The team considered what evolution is for a car and reached the conclusion that allocating the minimum space for mechanics and the maximum space for passengers seemed an ideal into which the automobile should evolve and it therefore developed the idea that this required a short but tall spherical car, therefore lighter, less expensive, more comfortable and solid. So, they came up with the concept of a tall and short car - 'Tall Boy' - emerged through an analogy between the concept of 'man-maximum, machine-minimum' and an image of a sphere that contains the maximum volume within the minimum surface area and this ultimately resulted in the Honda City.

### ***Examples of the combination mode***

The *combination* mode of knowledge conversion (from explicit to explicit knowledge conversion) is 'a process of assembling new and existing explicit knowledge or systemizing concepts into a knowledge system. This mode of knowledge conversion involves combining different bodies of explicit knowledge. Individuals exchange and combine knowledge through such media as documents, meetings, telephone conversations or computerized communication networks. Reconfiguration of existing information through sorting, adding, combining and categorizing of explicit knowledge (as conducted in computer databases) can lead to new knowledge. An example of the combination mode is Kraft General Foods, a manufacturer of dairy and processed foods in the USA (see Nonaka & Takeuchi, 1995 for more details). The company has developed an information-intensive marketing program called 'micro-merchandizing'. For the programme, varied data on customers was gathered from a POS (point-of-sales) system of retailers, which is (explicitly) codified and accumulated in the computer. By '*combining*' the data, that is, analysing the data (based on four elements of 'category management' methodology; consumer and category dynamics, space management, merchandizing management, and pricing management) the company provided

supermarkets with timely and precise recommendations on the optimal merchandise mix and with sales promotions.

### ***Examples of the internalization mode***

The *internalization* mode of knowledge conversion is a process of embodying explicit knowledge into tacit knowledge (from tacit to explicit knowledge conversion). For explicit knowledge to become tacit, it helps if the knowledge is verbalized or diagrammed into documents, manuals or oral stories. Documentation helps individuals internalise what they have experienced, thus enriching their tacit knowledge. Education is an example of the internalization mode of knowledge conversion because it is intended to create internalization of explicit knowledge, for example, written text information transferred into students' brains.

### ***The Knowledge Spiral***

Nonaka also assumes that a spiral emerges when the interaction between tacit and explicit knowledge is elevated dynamically from a lower ontological level (an individual) to a higher ontological level (inter-organizational). He calls this the *knowledge spiral*. The four modes of knowledge conversion are also the mechanisms by which individual knowledge gets articulated and amplified into and throughout the organization. There are also other notions Nonaka has developed, which will be explained and examined in detail in the next chapter.

## **1.4 The relevance of Nonaka's theory to the urban regeneration context**

Although it was argued earlier that knowledge and (organizational) knowledge creation have, to date, received less attention as a main focus in the literature relating to urban regeneration, having examined the body of literature on urban regeneration, there are some works that, explicitly or implicitly, pay attention to knowledge or organizational knowledge creation (see e.g. Landry & Bianchini 1995; Knight, 1995; Leadbeater, 1999; Giddens, 2000; Hill, 2000; Taylor, 2000; Landry, 2000, Imrie & Raco, 2003).

The following section explains how the issues of knowledge which Nonaka highlights, are present, one way or another, in much of the research into urban regeneration.

### ***Tacit knowledge and urban regeneration in the UK***

Nonaka's two types of knowledge, that is, *tacit* and *explicit*, can be present in the urban regeneration literature. *Tacit knowledge* may correspond to 'knowledge of a place (city)' or 'knowledge local people possess', that is, 'local knowledge' in the UK urban regeneration context. This is so because tacit knowledge is by definition highly 'context-specific' and subjective, that is, located in a place and possessed by the people who live there. The importance of tacit knowledge is highlighted in the policy documents of the New Labour government such as the *National strategy for neighbourhood renewal* (SEU, 2000, p7), which states that (previous) governments failed to harness the 'knowledge and energy of local people'. Taylor (2000, p1026) also argued that a new approach to urban regeneration is needed which utilizes "local knowledge that people living in a particular locality have about what will work locally and what will not". This is echoed by Imrie & Raco (2003) who also imply the importance of the use of local knowledge in the policy process of urban regeneration, making the criticism that despite of the Labour government's emphasis on the involvement and activation of local knowledge in the policy process, the practices of urban governance remain highly centralized. Focusing more on the policy-making process itself in urban regeneration, Lichfield (2001) also argues that urban regeneration proposals should be based on varying degrees of 'local knowledge', when policymakers attempt to identify the specific conditions and variations within a given area. All these arguments on local knowledge in the urban regeneration literature are closely related to tacit knowledge in Nonaka's terms.

### ***Explicit knowledge and urban regeneration in the UK***

At the same time, the emphasis on *explicit knowledge*, which is shared in the form of data, scientific formulae, manuals and the like, is also present in the urban regeneration context (see e.g. Lichfield, 1992; Carley, 1995; DETR, 1999a; DETR, 2000). Carley



(1995) argues that the need for good information on urban regeneration is indisputable although the difficulty remains with gathering and using this. Although Carley doesn't define the term information, given that he highlights the importance of explicit analysis of information, it seems that it points to explicit knowledge in Nonaka's terms. Explicit knowledge may also correspond to 'knowledge' which experts have. Both the Urban Task Force Report '*Towards an urban renaissance*' (DETR, 1999) and the Urban White Paper on urban policy, '*Our towns and cities –The future: Delivering an urban renaissance*' (2000), acknowledge the importance of the use of the expert knowledge which architects, designers, planners have to enhance urban spaces and the lives of communities (see e.g. Imrie & Raco, 2003; Lees 2003). For example, the Urban Task Force Report states that local authorities should be strengthened in powers, resources and democratic legitimacy to undertake the role in partnership with the citizens and communities they represent. This emphasis on the role of local authorities implies the importance of expert knowledge. Although it is unpopular for local authorities to have any power (see e.g. Imrie & Raco, 2003), the emphasis on the technical knowledge of experts implies the recognition of the importance of Nonaka's explicit knowledge in the urban regeneration context.

### ***Socialization mode and urban regeneration in the UK***

The elements of Nonaka's four modes of knowledge conversion in his SECI model are also present in much of the literature on urban regeneration. The socialisation mode of knowledge conversion, which broadly means the process of sharing mental models while building trust networks, is, for example, closely related to the notion of 'social capital' or 'community capital' in the urban regeneration context and government reports in particular, a fact which has been extensively argued in recent years (see e.g. Kleinman, 1998; Hill, 2000; SEU, 2000; Taylor, 2000; Home Office, 2001; Tiesdell & Allmendinger, 2001; Kearns, 2003; Smith et. al., 2004). For instance, SEU's (SEU, 2000) document, *National strategy for neighbourhood renewal*, in defining social capital as 'the contact, trust, solidarity that enables residents to help, rather than fear, each other' (p8), argues that based on its social capital, 'a community's ability to help

itself is usually built'. The Community Cohesion Review Team, which was set up in response to the urban riot in three northern English towns in spring and summer 2001, also argues that the 'divided communities would need to develop common goals and a shared vision' and 'should occupy a common sense of place as well' (Home Office, 2001b, p70 cited in Kearns, 2003). Moreover, academic commentators such as Hill (2000) point out that in the British context, the argument is that economic regeneration flourishes best in communities where there is a high level of social capital, marked by voter turnout, membership in organizations and cooperation for mutual benefit. Focusing more on the strategy-making process for urban regeneration in the UK, which is more relevant to Nonaka's theory, Lichfield (2001) points out that the primary goal of management in policy-making on urban regeneration based on private public partnerships, is to create an organization that will enable the sharing of 'knowledge' between participants and facilitate agreement on a strategic vision. Her account is consistent with Nonaka's notion of the socialization mode in identifying the importance of expanding and sharing context-specific (tacit) knowledge among participants. Although the notion of social capital in the urban regeneration context has attracted much debate and criticism (see e.g. Taylor, 2000; Kearns, 2003), taking all the above comments into consideration, it can be said that the importance of a perspective related to the socialization mode of knowledge conversion in Nonaka's terms is also implied in the urban regeneration context, for example, in using the notion of social capital.

### ***Externalization and urban regeneration in the UK***

It seems that little literature in the field of urban regeneration has paid attention to the idea which is related to Nonaka's notion of the externalization mode of knowledge conversion, which broadly means the process of creating concepts. However, the notions of 'synergy' or 'creativity' in the urban regeneration context seem to be related to some extent. Bailey (1995), for example, argues that partnership approaches to urban regeneration, based on people from diverse backgrounds, can generate 'synergy', which produces more effective results throughout the decision making process. This perspective is quite similar to Nonaka's externalization mode in that ideas are created

cooperatively through dialogue. More recently, the notion of 'creativity' has become popular in the field of urban regeneration (see Landry & Bianchini, 1995; Landry, 2000; Hill, 2000). For example, Hill (2000) notes the significance of citizens' creativity for reinvigorating a city and points out that a city is a place where talents can be exploited and activities abound. This has an echo of Landry & Bianchini (1995, p17) who describe 'creative thinking' in the urban regeneration context as 'a way of getting rid of rigid preconceptions and of opening ourselves to complex phenomena which cannot always be dealt with in a strictly logical manner. It is also a way of discovering previously unseen possibilities'. Landry (2000) in his book 'Creative City' also argues that one creative technique is to use analogy and metaphors, which he considers have immense power and are ways of bringing together, by force, seemingly incompatible concept. This account is quite similar to Nonaka's notion of the externalization mode of knowledge conversion, which places the importance of analogy and metaphors at the centre of this mode. Moreover, urban leadership is closely related to the externalization mode of knowledge creation in that leaders play an important role in transforming their situation with their creative ability (see Bryman, 1992, Moscovici, 1993, Purdue, 2001). Purdue (2001) argues that community leaders integrates new ideas into their thinking and tried them out.

### ***The combination mode and urban regeneration in the UK***

The combination mode of knowledge conversion, which broadly means the process of combining new with existing knowledge, seems closely related to the notion of 'integration' in the urban regeneration context. This is because integration is an action to combine knowledge into a framework. Lichfield (1992) pointed out that in the past, because of its taking place on a piecemeal basis, a great deal of urban redevelopment has had far less impact on urban problems. She goes on to argue that an 'integrated' approach to urban regeneration is needed to address the diversity and complexity of urban renewal. This is echoed by Roberts (2001) who also argues that an isolated, property-led solution cannot be expected to address the full range of economic, social and environmental problems that are encountered in urban areas and that it is well worth

generating and delivering an integrated and comprehensive solution to the challenges of urban regeneration. This perspective is quite similar to Nonaka's notion of the combination mode of knowledge conversion.

### ***The internalization mode and urban regeneration in the UK***

The internalization mode of knowledge conversion, which means the process of internalizing explicit knowledge into participants' brains or bodies, seems closely related to the notion of 'capacity building', and 'community capacity building' in particular, in the urban regeneration context. The New Labour approach to urban regeneration is, as Raco (2003) points out, based on policies designed to provide people with the skills and capacities to reduce (their) poverty and dependence on welfare. For example, the DETR (1997) stresses the need for local communities to develop the capacity to enhance local economic development and strategic direction and management of programmes. A number of researchers also argue that capacity building is increasingly considered an essential concept in the urban regeneration context (Taylor, 2000; Wood, 2000; Jacobs & Dutton, 2001). Wood (2000, p13) refers to capacity building as 'the process of developing the abilities of local people to organize themselves so that they have more influence over the process and involvement in the outcomes'. Although this definition is broader than Nonaka's notion of the internalization mode of knowledge conversion, both notions share the same perspective in providing (or internalizing) 'knowledge' (and skills) with (into) participants of policy-making. Although the concept of capacity building has generated much debate and criticism (see, e.g. Imrie & Raco, 2003), given that the notion is considered important in urban regeneration, it can be argued that the internalization mode of knowledge conversion is also present in the urban regeneration context.

### ***Relevance of Nonaka's theory for urban regeneration***

Taking all the above arguments into account, it can be concluded that much work has been done in the urban regeneration context which is closely related to the elements of Nonaka's SECI model (see Table 1-3). This suggests that Nonaka's theory is relevant to

urban regeneration in the UK.

Table1-3: The relationship of Nonaka's four modes of knowledge conversion and urban regeneration research in the UK (Source: Author)

Knowledge conversion mode (Form of knowledge conversion)	Related notions of urban regeneration
<b>Socialization mode</b> (Tacit knowledge → Tacit knowledge)	<b>Social capital, sharing same language and knowledge</b>
<b>Externalization mode</b> (Tacit knowledge → Explicit knowledge)	<b>Synergy, creativity, urban leaderships</b>
<b>Combination mode</b> (Explicit knowledge → Explicit knowledge)	<b>Integrated approach</b>
<b>Internalization mode</b> (Explicit knowledge → Tacit knowledge)	<b>Capacity-building</b>

However, there are still very few studies on 'how new knowledge is created' in processes of urban regeneration and the stage has not yet been reached where a coherent, *theoretical* base is being offered for knowledge-focused research in the context of urban regeneration. That is, there are still gaps in the existing research and this will need to be addressed if a clear understanding of the significance and limitations of a collaborative partnership approach is to be researched.

## 1.5 Research hypotheses and assumptions

### *Hypotheses and its assumptions*

Based on the previous analysis, hypotheses and their assumptions in this research are then proposed as follows;

#### **Hypothesis 1**

Nonaka's theory of organizational knowledge creation can be applied to the KM context in the UK in particular, both in the senses of theory and practice.

Hypotheses 1 is based on the assumptions that

- There are knowledge-creating companies in Japan and in the UK.
- Knowledge-creating companies have the same mechanisms and processes through which knowledge is created in Japan and in the UK.

- The knowledge-creating companies have the same organizational conditions that facilitate the processes of knowledge creation within organizations in Japan and in the UK.

## **Hypothesis 2**

(If Nonaka's theory can be applied to knowledge-creating organizations in the UK in particular), Nonaka's theory can be applied to organisations engaged in policy-making, planning and management for urban regeneration in the UK in both theory and practice.

Hypothesis 2 is based on the assumptions that

- There are knowledge-creating activities in business organizations and in strategic policy making organizations for urban regeneration.
- The knowledge-creating activities which take place in business organizations and in strategy-making organizations for urban regeneration in the UK have the same mechanisms and processes through which knowledge is created and sustained.
- Knowledge-creating organizations for both business and urban regeneration in the UK have the same organizational conditions that facilitate the processes of knowledge creation within their organizations.

## **1.6 Research problems and scope of research**

### **1.6.1 Definition of urban regeneration and research problems and directions**

#### ***Complexity of urban regeneration***

Before embarking on this research, it is crucial to look first at the definition of the term 'urban regeneration'. Urban regeneration is a complex and multifaceted notion, which covers an extensive range of issues relating to the urban revitalisation of cities including economic, financial, physical, environmental, social and cultural. It also encompasses substantive aspects such as housing, transport, employment, education and training and this complexity makes it difficult to define the term 'urban regeneration'. Indeed,

Lichfield (1992) points out that because policy makers and operators do not share a clear concept of urban regeneration, a great many fragmented initiatives are taken and the results are invariably disappointing.

### ***Definition of urban regeneration***

Roberts (2000, p17) defines urban regeneration as a 'comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change'. This definition is simple but comprehensive and takes into account the essential features of urban regeneration. It has, consistent with its aim, overcome the limitations apparent in urban regeneration initiatives proposed in and implemented under earlier administrations, noted in the section 1.1.

### ***Difficulty of conducting this research***

The above definition, however, implies that certain difficulties will be encountered in producing satisfactory results from this research. This is because the definition pays minimal attention to *the process* through which an urban regeneration strategy is created. Indeed, this tendency may reflect the research in the field of urban regeneration. For example, in the well-documented and informative work, entitled 'Urban Regeneration: A Handbook' (Roberts & Sykes (eds.), 2000), the organizational issues such as partnerships and strategy-making process are addressed as a chief consideration only in two chapters out of fourteen. This assertion is supported by Carley et al. (2000a) who argue that although there has in recent times been much useful analysis of urban problems, including by the Urban Task Force (Rogers, et al., 1999), the Social Exclusion Unit and the Scottish Social Exclusion Network, the focus of most is on substantive issues (*what to do*) rather than on the process (*how to do it*).

### ***Absence of a comprehensive theoretical framework***

Apart from the definition, the fact that there are no comprehensive theoretical

frameworks in the fields of urban regeneration in general, and of urban regeneration processes in particular, also poses a number of difficulties for the research. For example, acknowledging the absence of a single accepted theory which can cover whole issues of urban problems and its solutions, Roberts (2000) claims that the regulation theory contributes to urban regeneration in creating a theoretical framework. It is so, according to Roberts, because it shows that new forms of control and intervention have emerged as a response to unexpected challenges. However, it seems hard to derive any meaningful *practical* insights for urban regeneration in general, and for the collaborative partnership approach in particular, from the regulation theory. This is simply because, with only an abstract framework to work with, the dynamic nature of urban regeneration remains elusive. Even more fundamentally, the regulation theory does not even suggest concrete ways in which urban regeneration strategy-making and its processes are effectively conducted. Without any authorized and coherent theoretical studies of urban regeneration to draw on, it is hard to produce meaningful results in this research since it is impossible to make a comparison between urban regeneration theories and Nonaka's theory from the epistemological and ontological positions they take.

### **1.6.2 The focus and scope of this research**

#### ***Focusing on urban planning theory***

Given such research problems, it seems that this research as an academic work will be more fruitful if it looks in great detail at *urban planning theory*, rather than at urban regeneration literature. There are several reasons for this. Firstly, the field of urban planning is an adjoining and overlapping area of both urban regeneration and organizational studies (including KM), and secondly, there is extensive research which focuses on the *theoretical* aspect of urban planning (see e.g. see e.g. Faludi, 1973, 1986, 1987; Sorensen, 1982; Forester, 1989a; Healey, 1992a, 1997; Innes, 1995, 1998; Taylor, 1998; Pennington, 2000; Allmendinger, 2002; Allmendinger & Tewdwr-Jones (eds.), 2002). Thirdly, there is substantial literature on urban planning which pays close attention to the theoretical aspects of *procedure* and *management* in a comprehensive



and coherent manner and which is applicable to urban regeneration. In taking all the above facts into consideration, the focus of this research should be on urban planning theory, rather than urban regeneration literature, even to examine the applicability of Nonaka's theory to the urban regeneration context.

### ***Focusing on procedural theory of urban planning***

As a piece of academic research, it is also essential to narrow down the scope of urban planning theory which should be dealt with in this research. Faludi (1973) distinguished two types of urban planning theory; namely, *procedural theory* (theory in planning) and *substantive theory* (theory for planning), acknowledging both are interrelated. Table 1-4 shows characteristics of both procedural and substantive theories.

Table1-4: Faludi's typology of planning theory (see Faludi, 1973)

Procedural Theory (Theory of Planning)	Substantive Theory (Theory in Planning)
<ul style="list-style-type: none"> <li>● Process-oriented</li> <li>● More basic and general</li> </ul>	<ul style="list-style-type: none"> <li>● Subject-matter</li> <li>● More specific</li> <li>● Dealing with environment</li> </ul>

According to Faludi, the substantive theory is subject-matter and specific, which helps planners to understand whatever their area of concern may be. On the other hand, procedural theory can be seen as process-oriented and more basic and general, which enables planners to understand the meaning of their activities and the planning system in which they operate.<sup>5</sup> Since the concern of the research presented here is with the process, rather than substantive dimension of urban regeneration in particular, it will focus on *procedural theory of planning* defined by Faludi as the materials for the theoretical examination of this thesis. Figure 1-1 shows relationships between urban planning theory, management theory (including organization studies and KM) and (potential territory of) urban regeneration theory, and the scope of this research.

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<sup>5</sup> Faludi (1973) went on to argue that although both types of theories are needed for effective planning, the procedural planning theory is more fundamental than the substantive one. This is, according to Faludi, because without the organizational or procedural aspect, even the most refined substantive theory will not allow effective planning. It is also more important because it can be easily applied to any number of contexts in planning, including urban regeneration, and even other areas of responsibility, which involve social workers or operational researchers, for example.

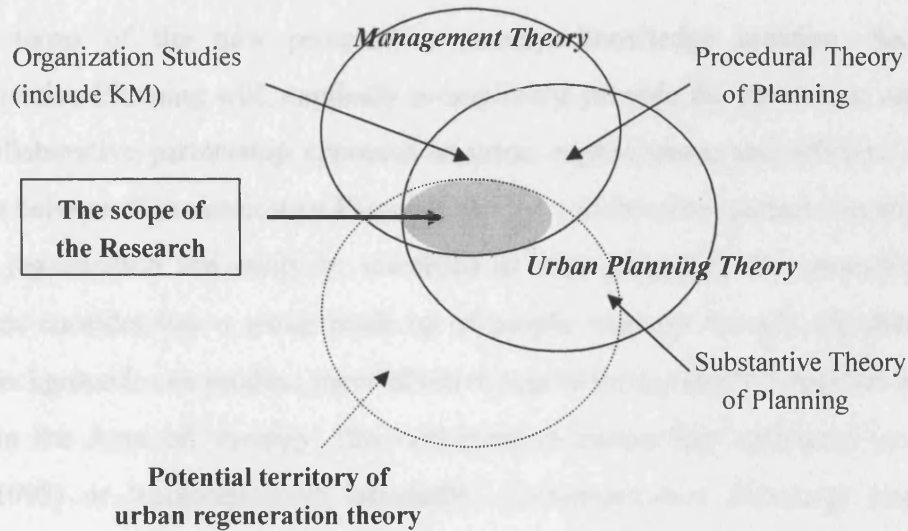


Figure1-1: Relationships between urban planning theory, management theory (including KM) and the potential territory of urban regeneration theory, and the scope of this research (Source: Author)

### ***Two (sets of) procedural theories of urban planning***

Two (sets of) main procedural theories of urban planning have been identified: *Systems Theories and Rational Theories of Planning* and *Communicative Planning*. Both sets of theories had or have had a huge impact on the field of urban planning theory and even of urban regeneration. Therefore, Chapters 4 and 5 will examine these two sets of theories in relation to Nonaka's theory of organizational knowledge creation in an attempt to ultimately investigate the applicability of Nonaka's theory to urban regeneration.

### ***Advantages of focusing on the two sets of urban planning theories***

There are a number of advantages to *Systems Theories and Rational Theories of Planning* and *Communicative Planning* in terms of Nonaka's theory of organizational knowledge creation, which will in turn be examined. Firstly, Systems Theories and Rational Theories of Planning, either explicitly or implicitly, give the theoretical rationale to the British urban planning systems established in 1947 (see e.g. Faludi, 1973; Couch, 1990) and therefore any examination must identify the reasons why the British urban planning system could not deal with complex urban problems. This will be

done in terms of the new perspective, namely, knowledge creation. Secondly, Communicative Planning will, explicitly or implicitly, provide the theoretical rationale to the collaborative partnership approach to urban regeneration, and affinities which may exist between Communicative Planning and the collaborative partnership approach to urban regeneration can easily be identified in their grounding. For example, both approaches consider that a group made up of people who are brought together from diverse backgrounds can produce more effective results throughout the decision making process in the form of 'synergy' (the collaborative partnership approach) (see, e.g. Bailey, 1995) or 'communicative rationality' (Communicative Planning) (see, e.g. Healey, 1997). The examination of the importance and limitations of Communicative Planning in terms of knowledge creation in general and Nonaka's theory in particular can identify theoretical limitations of the collaborative partnership approach to urban regeneration and provide more effective perspectives and solutions.

As mentioned earlier, Nonaka's theory has been elaborated on through the investigation of Japanese practices in business organizations. Therefore, before examining the applicability of Nonaka's theory to the urban regeneration context by using urban planning theories, the next two chapters will examine trans-nationality and its applicability to the theoretical context of organization studies in the West (Chapter 2) and to the KM context in the UK (Chapter 3). This will be in the form of preliminary research to establish a firm grounding for the main body of work.

## **1.7 Criteria of theoretical analysis**

### **1.7.1 Limitations of scientific research methods and the importance of hypothesis-formulation**

#### ***Limitations of scientific method***

A PhD thesis should generally adopt scientific methods, which are characterized by *premise-reasoning* and *premise-testing*. This work therefore seeks to satisfy these two procedures, carefully dealing with them in a rational matter. There are, however, some limitations to the method identified. Firstly, as Nishibe (1996) points out, the scientific

method has no theoretical rationale for the formulation of premises (hypotheses) and therefore, it can allow a researcher to posit premises, depending on researchers' interest, preferences or hunches. Secondly, because of the arbitrary way different premises posited, even if two researchers observe the same social phenomenon, they can find different facts to test their own propositions. For example, whilst an economist carries out research based on the premise that the human being typically behaves in a way that maximizes his/her material wants, a political scientist can conduct research based on the premise that the human being acts in order to maximize his/her political power and influence. This suggests several incompatible premises can be confirmed by the same phenomenon, looking at only a certain dimension of the same social phenomenon based on different premises, such as economic or political facts, and therefore testing is not a sufficient condition to capture the empirical world.<sup>6</sup>

### ***The importance of looking at multifaceted dimensions***

Facing this problem, it is important to find a different way from ordinal scientific methods. In order to reduce the gap between theory and practice, it is crucial to look at the multifaceted dimensions of human beings and society in a holistic and comprehensive manner. The premises which cover the multifaceted dimensions of human beings and society should be posited in terms of an approach to research. In other words, it is inevitable to find the *criteria* to posit premises or perspectives in the hypothesis-formulation process of research, and these involve the multifaceted dimensions of human beings and society.

### **1.7.2 A linguistic approach as a fundamental common theory of social sciences**

As the *criteria* to posit premises or perspectives in the hypothesis-formulation process of research, the thesis chooses the linguistic theory because there are several advantages. Nishibe (1996) argues that a linguistic approach can provide the common theoretical base of social sciences in a holistic and comprehensive manner, which enables one to transcend the problems that are attributed to the different premises. In other words, the

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<sup>6</sup> In other words, there is no *commensurability* between the researchers on which different premises

linguistic approach can offer the foundation or common ground of trans-disciplinary research by incorporating all main aspects of the social sciences (such as economics, political science, sociology and cultural studies) into a framework which is developed by paying attention to the ability of human beings to use language. Given this advantage, the linguistic approach has been selected as criteria for the examination of the validity of the research hypotheses (premises) posited.

### ***The importance of semantics in linguistic theories***

Several linguistic theories exist and are divided roughly into three; phonetics, syntax and semantics. In the early stages of applying linguistic theory to social sciences, phonetics and then syntax were utilized. For example, Claude Levi-Strauss (1968), a French anthropologist, adopted and utilised phonology and then syntax within linguistic theory in order to demonstrate the system of unconsciously operating rules of thought built into the human mind in the field of anthropology (Jenkins, 1979; Nishibe, 1989; Cuff et al., 2003). The approach applied by Levi-Strauss has attracted considerable criticism from social theorists because his approach cannot adequately deal with human actions in terms of 'meaning' (see Nishibe 1986; Williams & May, 1996). In other words, there is increasing recognition that human actions should be explained by 'interpreting' them, that is, by giving them meanings or significances. In this sense, 'meaning' has become one of the main topics in social investigation and explaining human actions is a matter of meaning (see Nishibe 1986; Williams & May, 1996). In that sense, social phenomena should be examined in terms of the 'semantic field' and therefore the thesis should search for a linguistic theory which focuses on 'semantics'.

Among the few linguistic theories based on semantics, Nishibe's TEAM linguistic theory, which can be applied to social science, has been identified and will be explained bellow. The theory is therefore utilized as research criteria for assessing the trans-nationality and applicability of Nonaka's theory to the other contexts of KM in the UK in particular, as well as urban regeneration studies.

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are posited, even though they look at the same phenomenon. In other words,

### 1.7.3 Introducing the TEAM linguistic framework

#### ***TEAM linguistic structure***

As an analytical tool for this research, a number of notions of the TEAM linguistic approach developed by Nishibe (1996) are introduced. In paying attention to the meaning of language and at the same time acknowledging the multiplicity of that meaning, Nishibe (1996) divides the meaning function of language into four; namely, functions of (T) *transmitting* meaning, (E) *expressing* meaning, (A) *accumulating* meaning, and (M) *measuring* meaning.<sup>7</sup> Figure 1-2 shows the TEAM linguistic structure, which puts the four meaning functions of language into a four-fold matrix framework. This matrix is coordinated by axes, one regarding *explicitness / implicitness* and the other regarding *difference / identity*.

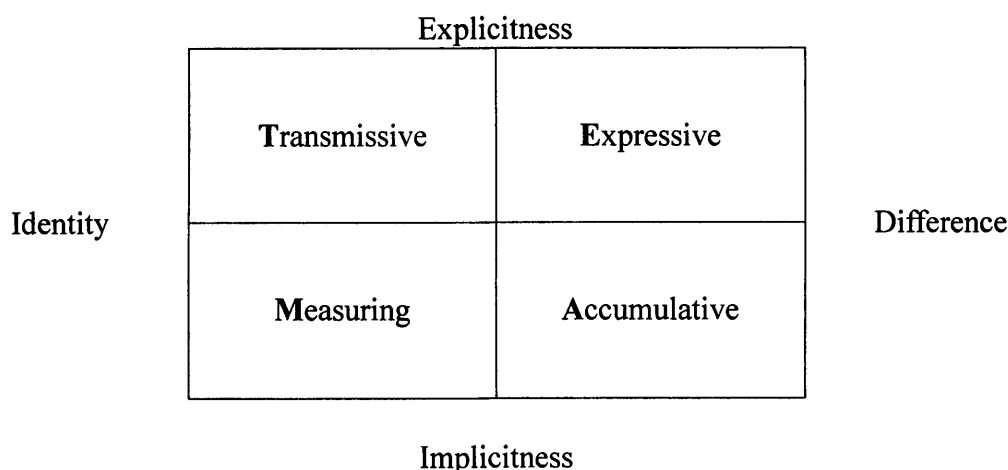


Figure1-2: TEAM structure: Linguistic meaning functions and the structure of language (Source: Nishibe, 1996)

#### ***Explanation of the TEAM four meaning functions of language***

An explanation of the TEAM structure will now be made. For example, if I say to a lady “I love you”, I *explicitly* ‘*express*’ my feeling (meaning) towards her by using language. This has a characteristic which is *differentiated* from the others because someone may use the words ‘fancy’, ‘like’ or ‘crazy about’ instead of ‘love’ when he expresses such a feeling. This is the *expressive* function of language (the quadrant of

<sup>7</sup> It may be easy to understand a function of ‘measuring meaning’ as of ‘sharing and providing latent value’.

explicitness-difference in Figure 1-2). I do so because I want to ‘*transmit*’ my feeling of love (the meaning) to her in an *explicit* form of spoken language. This is possible because there is an *identified* horizon or domain between her and me to understand the meaning of the words. In other words, the language allows her to understand my explicit spoken words. This is the *transmissive* function of language (the quadrant of explicitness-identity in Figure 1-2). Moreover, the sentence “I love you” I used is also based on my own *implicitly* ‘accumulated’ experience, which is *differentiated* from others (the *accumulative* function of language) (the quadrant of implicitness-difference in Figure 1-2). For example, I had probably been impressed by American films and the phrase has been accumulated for use in certain circumstances. Or I had some previous experience of love affairs. These are different experiences from other people that led me to say to her “I love you” on this occasion. That is say, my exposure to Hollywood films and previous love affairs account for this. However, at the same time, language can be ‘*measured*’ by comparing it to others (the *measuring* function of language) because language is made up of an *implicit* value system, which can be *identified* (or shared) with others who can use the language (the quadrant of implicitness-identify in Figure 1-2). That is, she may measure or judge that my expression is, for example, too ‘straight’ or very passionate. According to Nishibe (1996), language is mainly composed of these four meaning functions and sustained when the four functions are maintained in a balanced way. Taking into consideration that the strategy-making process for urban regeneration inevitably relies on the linguistic activities of the participants, the TEAM linguistic theory, which focuses on the human activities of *transmitting*, *expressing*, *accumulating* and *measuring* linguistic meaning, should help grasp a better understanding of the processes of urban regeneration.

### ***Individual-collective relationship within the TEAM linguistic structure***

In order to examine human behaviour in general and activities associated with human ‘knowledge’ in particular, in the organizational context, it is also important to link the TEAM linguistic structure with the *individual-collective relationship (ontology)*. In other words, for example, in the practice of strategy-making for urban regeneration

social events should be examined in their entirety, while also noting individuals' roles. Figure 1-3 provides this linkage. An assumption is made by Nishibe (1996) that when the (TEAM) meaning structure of language is transferred into the human structure of character, namely, the individual-collective relationship, a gap occurs like Figure 1-3.

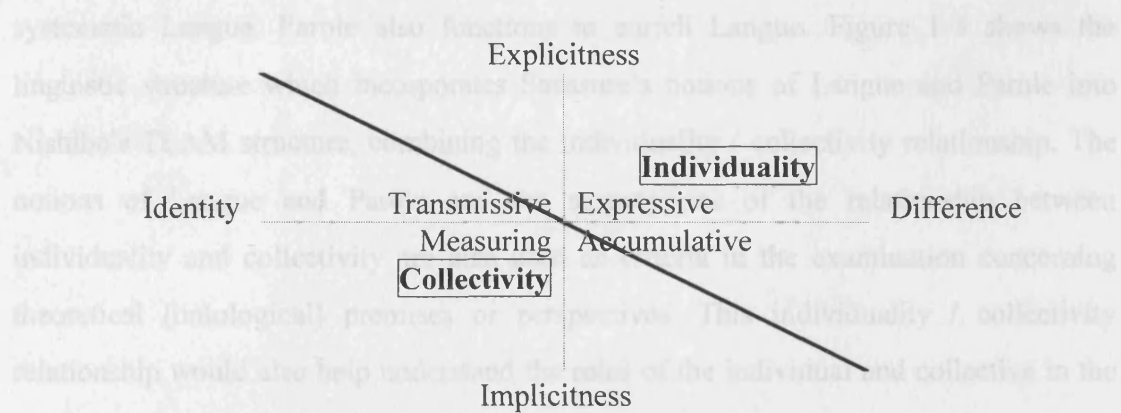


Figure1-3: Individual-collective relationship (ontology) within the TEAM linguistic structure (Source: Nishibe, 1996)

For example, the term 'individuality' is characterized not only as *differentiated* from others, but also as *explicit*. In other words, it is marked primarily as the expressive function of the TEAM structure. On the other hand, the term 'collectivity' is characterized not only as *identified* with others, but also as *implicit*. Likewise, it is marked primarily as the measuring function (providing latent value). This meaning is that individual agents play a crucial role, for example in decision making processes of urban regeneration strategies mainly by 'expressing' their own ideas, which are collectively 'measured' based on existing latent value.

### **TEAM structure, individual-collective and Langue-Parole**

Nishibe's ontological assumption is consistent with Saussure (1983), a linguistic theorist, who analysed language as having several dualistic structures, one of which is the duality between *Langue* and *Parole*. According to Saussure (1983), whilst *Langue* is the linguistic system that exists independently of any individual speaker and his/her linguistic activity, *Parole* is specific to individuals and has to do with what they do, by using that linguistic system. Nishibe (1996) extends Saussure's assumption about



Languge and Parole, combining them with the TEAM structure. According to Nishibe (1996), Languge tends to be implicit and institutional, and therefore, functions to confer a framework to explicit, individual Parole. Parole helps an individual to carry out actual, specific activities, differentiating it from Languge, but is underpinned by formalistic and systematic Languge. Parole also functions to enrich Languge. Figure 1-4 shows the linguistic structure which incorporates Saussure's notions of Languge and Parole into Nishibe's TEAM structure, combining the individuality / collectivity relationship. The notions of Languge and Parole and the assumptions of the relationship between individuality and collectivity are also used as criteria in the examination concerning theoretical (ontological) premises or perspectives. This individuality / collectivity relationship would also help understand the roles of the individual and collective in the strategy making process in urban regeneration.

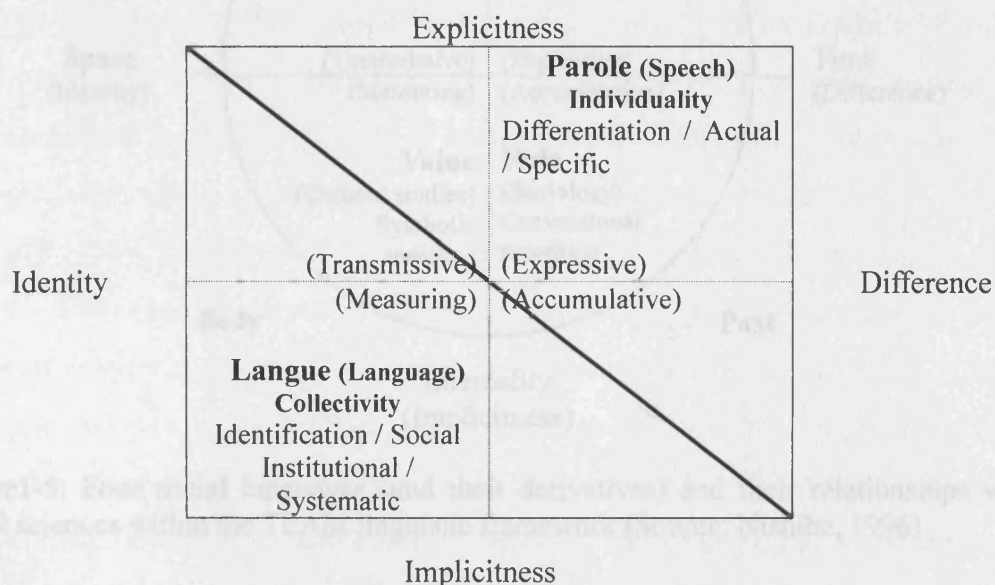


Figure1-4: Relationships between Languge / collectivity and Parole / individuality within the TEAM structure (Source: Author)

#### ***TEAM linguistic framework and social languages***

Moreover, Nishibe (1996) expands the TEAM linguistic structure toward establishing an inclusive framework for social science, into which all main aspects of the social sciences are incorporated and related each other. Assuming that a human society can be

well-explained using linguistic structure and the meaning functions, Nishibe's premise is that human beings try to understand the 'world', including society and humans themselves, by means of language and develops another two-by-two matrix, which is combined within the TEAM structure (see Figure 1-5). This matrix is coordinated by axes, one regarding *externality / internality* and the other regarding *space / time*. These axes correspond to *explicitness / implicitness* and *difference / identity* respectively, which was introduced in Figure 1-2.<sup>8</sup>

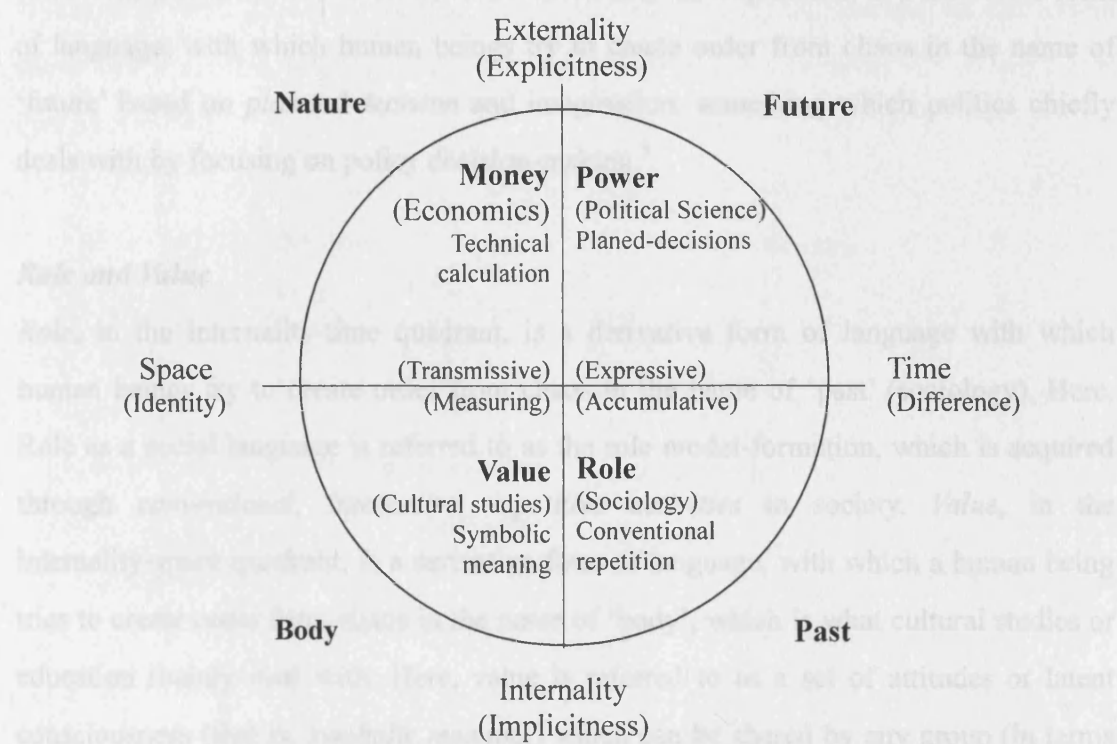


Figure1-5: Four social languages (and their derivatives) and their relationships with social sciences within the TEAM linguistic framework (Source: Nishibe, 1996)

Figure 1-5 suggests that human beings try to establish *order* by means of using four social languages, namely, *Money*, *Power*, *Role* and *Value*, and their derivatives (quantitative (technical) calculation, planned decision, conventional reiteration and symbolic meaning). The matrix also suggests that Money, Power, Role, and Value as

<sup>8</sup> The main difference between Figure 1-2 (explicitness/ implicitness & difference/identity) and Figure 1-5 (externality/internality & space/time) is that the subject of the former is 'language' itself while the latter concerns human 'consciousness' when using language. See more detail Nishibe (1996) Chapter 5.

social languages correspond to the main fields of social science: *Economics*, *Political science*, *Sociology* and *Cultural studies (Education)*, respectively.

### ***Money and Power***

*Money*, in the externality-space quadrant, is a derivative form of language with which human beings try to create order from chaos in the name of ‘nature’ (material world) using *quantitative (technical) calculation* in an effective matter, which economics is concerned primarily with. *Power*, in the externality-time quadrant, is a derivative form of language, with which human beings try to create order from chaos in the name of ‘future’ based on *planned-decision* and imagination, something which politics chiefly deals with by focusing on policy decision-making.<sup>9</sup>

### ***Role and Value***

*Role*, in the internality-time quadrant, is a derivative form of language with which human beings try to create order from chaos in the name of ‘past’ (sociology). Here, Role as a social language is referred to as the role model-formation, which is acquired through *conventional, interactive, repetitive activities* in society. *Value*, in the internality-space quadrant, is a derivative form of language, with which a human being tries to create order from chaos in the name of ‘body’, which is what cultural studies or education mainly deal with. Here, value is referred to as a set of attitudes or latent consciousness (that is, *symbolic meaning*) which can be shared by any group (in terms of politics, geography, religion, ethnicity, organization and the like), and are *internalized* in individual ‘bodies’. The main difference between Value and Role as social languages is that while Role highlights the (historically) *embedded* dimension in a society, but is *differentiated* in each individual, Value stresses the *embodied* dimension within each an individual in a society, which can be *identified* with others.

### ***The importance of maintaining a balance between the four social languages***

According to Nishibe, when a balance is maintained between the four social languages,

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<sup>9</sup> It is assumed that politics has to pay sufficient attention to future, rather than the present, because decision-making is closely related to goal attainment as an ideal future.

a human society becomes characterized by *stable continuity*. In other words, by paying attention to all four social languages (and their derivatives), human society is understood in a holistic and balanced manner, representing reality. These linguistic notions are fully used in this research as criteria.

### ***Contextualising the TEAM linguistic framework to the urban regeneration context***

To address its effectiveness and importance, here Nishibe's TEAM linguistic framework, which has been expanded to the social sciences, is contextualised to the urban regeneration context, although the introduction of this is not the main aim of this thesis (see Figure 1-6).

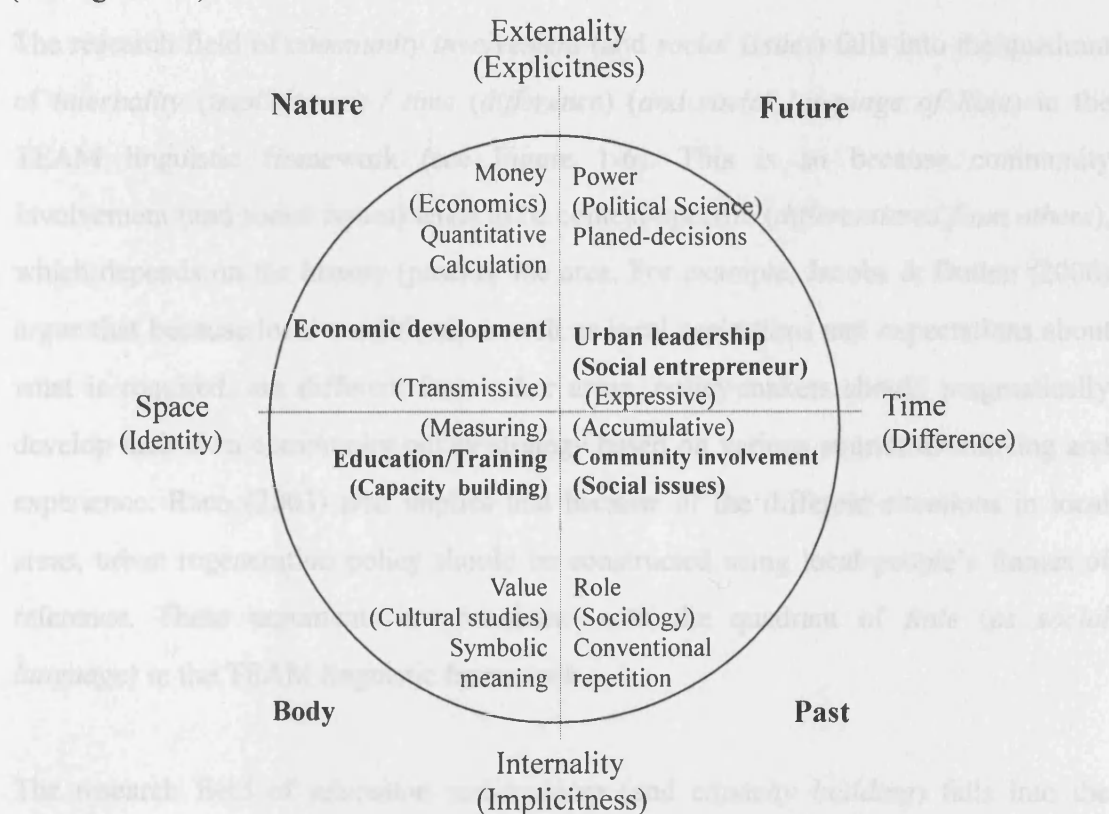


Figure1-6: The relationships between the TEAM linguistic framework (and four social languages) and several areas of urban regeneration (Source: Author)

Broadly speaking, the research field of *urban (community) leadership* (and *social entrepreneur*) falls into the quadrant of *externality (explicitness) / time (difference)* (and *social language of Power*) in the TEAM linguistic framework (see Figure 1-6). This is

so because this field looks at the exercise of power or the political nature of urban regeneration and has an unpredictably future-oriented perspective. This argument is supported by the literature on leadership and social entrepreneurs in urban regeneration. For example, Purdue (2001) argues that urban (community) leaders may be viewed primarily in terms of their ability to transform their situation, and have both an ability to cope with risk and ‘uncertainty’ and creativity in solving problems through divergent thinking. Leadbeater (1997) also argues that social entrepreneurs are capable of creating ‘impressive schemes’ with virtually no resources and innovate ‘new ways’ of delivering existing services.

The research field of *community involvement* (and *social issues*) falls into the quadrant of *internality (implicitness) / time (difference) (and social language of Role)* in the TEAM linguistic framework (see Figure 1-6). This is so because community involvement (and social issues) tends to be context-specific (*differentiated from others*), which depends on the history (past) of the area. For example, Jacobs & Dutton (2000) argue that because local conditions, as well as local aspirations and expectations about what is required, are different from other areas, policy-makers should pragmatically develop their own community policy strategy based on various strands of thinking and experience. Raco (2003) also implies that because of the different situations in local areas, urban regeneration policy should be constructed using local people’s frames of reference. These arguments are consistent with the quadrant of *Role (as social language)* in the TEAM linguistic framework.

The research field of *education* and *training* (and *capacity building*) falls into the quadrant of *internality (implicitness) / space (identity) (and social language of Value)* in the TEAM linguistic framework (see Figure 1-6). This is so because education and training have a characteristic of the internalization of identified knowledge into humans’ bodies (or brains). Hart & Johnston (2000), for example, argue that because the competitiveness of a locality critically depends on its human resources, education and training are key components of urban regeneration. Jacobs & Dutton (2000) also argue

that community organizations need to develop their capacities to engage in local economic development and social initiatives by, for example, developing the skills that enable local people to take charge of their futures. Although these researchers don't mention the exact nature of education and training, it is apparent that education and training in urban regeneration fall into the quadrant of Value (as social language) in the TEAM linguistic framework, because they relate to internalizing (or developing) identified knowledge.

The research field of *urban economic development* falls into the quadrant of *externality (explicitness) / space (identity) (and social language of Money)* in the TEAM linguistic framework (see Figure 1-6). This is so because these fields have to pay attention to technical calculations and look at the 'adaptation' to external environments (nature) of, for example, markets. For example, Noon et al. (2000) imply that as part of urban economic strategies, cities need to adapt (or react) to current external economic environments by, for example, developing conference facilities and tourism. Jeffrey & Pounder (2000) also point out that it is fundamental that any regeneration scheme is built upon realistic social and economic trends, and therefore that the consideration of urban infrastructure is undertaken within the context of well-founded understanding of what the market, economic and social conditions will be like. These arguments are consistent with the quadrant of Money (as social language) in the TEAM linguistic framework. Moreover, it can be said that the New Right approach to urban regeneration focused only on this dimension of social language.

Although this classification is quite broad, the TEAM linguistic framework may be useful in identifying and explaining the theoretical preferences, tendencies and limitations of these research fields within urban regeneration and relate each to the others and provide common ground for discussion.

#### **1.7.4 Limitations and advantages of using the TEAM linguistic theory**

One can argue that a grand theory, like the above TEAM linguistic theory, is overly

formalistic and a 'blunt' tool, by which to explore the subtleties of empirical contexts such as strategy-making processes in urban regeneration. It is true that it is hard to directly link such a grand theory to empirical research (see e.g. Merton, 1957). Acknowledging such a limitation, some advantages of introducing the TEAM theory to the thesis can be identified. Firstly, rather than directly using it as a tool for analysing the practice of urban regeneration, the theory can, as mentioned earlier, provide a general 'criteria' to evaluate the hypotheses of this thesis, which prevents the hypotheses from becoming arbitrary. It provides one criterion of evaluating whether or not the assumptions of Nonaka's theory and his SECI model in particular are valid (see Chapter 2). It can also potentially enable Nonaka's theory to be enriched at the theoretical level. Secondly, anchoring the examination in the TEAM linguistic theory is intended to reinforce the logic of the thesis, one of the key PhD criteria. Thirdly, by placing the TEAM linguistic theory as a fundamental theory, the commensurability with other theoretical examinations or other research based on empirical findings can be kept. In conclusion, although it is hard for the TEAM linguistic theory to be directly utilized as an analytical tool, its introduction to the thesis has many other utilities.

### **1.8 Potential contributions of this research**

This research can potentially contribute to:

- Providing a new, solid theoretical foundation for organizational knowledge creation in the context of urban regeneration, which may establish the strong linkage between urban economic issues and the collaborative partnership approach and is (potentially) capable of addressing the highly complex and extensive urban problems that today's cities are facing.
- Providing the practical application of the theory of organizational knowledge creation in the context of urban regeneration in the UK by conducting case study research.
- Providing a new, common and coherent understanding which bridges the fields of knowledge management (KM), urban planning theory and urban regeneration by

introducing the TEAM linguistic framework as commensurable criteria.

- Adjusting and mutually relating among existing various theoretical arguments in each theoretical field of organization studies, knowledge management, urban planning and urban regeneration in terms of knowledge and knowledge creation within the TEAM linguistic framework.

## **1.9 Data collection**

### **1.9.1 Data collection for the theoretical examination**

In order to examine the trans-nationality and applicability of Nonaka's theory in relation to the KM context in the UK in particular, and the urban regeneration context in the UK (using urban planning theory) in terms of both the theoretical and actual aspects, a variety of materials such as books, journal articles, working papers, web-site information, ranging from organization studies (including KM) to urban planning and urban regeneration studies, are collected. Because of the research focus on theoretical aspects and of the novelty of the topic, an up-to-date and wider range of the articles from academic journals have been collected. The following are the selected lists of academic journals which have been collected and used in this research.

#### ***Journals related to KM, organization and information systems***

- *Academy of Management Review*
- *Harvard Business Review*
- *Information & Management*
- *Journal of Information Technology*
- *Journal of Knowledge Management*
- *Journal of Management Studies*
- *Organization*
- *Organization Science*
- *Organization Studies*
- *Sloan Management Review*
- *Strategic Management Journal*

#### ***Journals related to urban regeneration and urban planning theory***

- *Environment and Planning A*
- *Environment and Planning B*
- *Environment and Planning C*



- *Environment and Planning D*
- *International Journal of Urban and Regional Research*
- *International Planning Studies*
- *Journal of American Planning Association*
- *Journal of Planning Education and Research*
- *Journal of the Royal Town Planning Institute*
- *Local Economy*
- *Regional Studies*
- *Planning Theory and Practice*
- *Urban Studies*

### **1.9.2 Data collection for the case study**

The Creative Town Initiative (CTI) in Huddersfield was chosen as a case study field in this research and the processes of creating the proposal for the CTI project (as well as its pre and post activities) are regarded as *knowledge creation processes*. To gain an informed insight into the knowledge creation processes in CTI in Huddersfield, the method of collecting data is divided into two separate sections; namely, (1) documentary information and (2) in-depth interviews. In-depth interviews include various key representatives of CTI from the public, private and voluntary sectors. Additional details regarding the methodology for the case study will be presented in Chapter 6.

### **1.10 Research outline of the subsequent chapters**

***Chapter 2: An examination of Nonaka's theory in terms of the TEAM linguistic framework and of its trans-nationality and applicability in organization studies in the West***

After introducing the wide ranging concepts of Nonaka's theory of organizational knowledge creation, this chapter will examine them in terms of the TEAM linguistic framework, which provides the theoretical soundness of Nonaka's theory and of the validity of research questions (hypothesis-formulation) provided. This chapter will also examine the trans-nationality and applicability of Nonaka's theory to *the theoretical context of organization studies in the West* as preliminary research into the application of Nonaka's theory to urban regeneration in the UK. It relates theoretical arguments on

knowledge in the literature of organization studies in the West with Nonaka's theory and they are also evaluated by using the TEAM linguistic framework.

***Chapter 3: An examination of the trans-nationality and applicability of Nonaka's theory in the knowledge management context in the UK***

This chapter aims to examine the trans-nationality and applicability of Nonaka's theory to *the knowledge management (KM) context in the UK* in particular. In other words, Hypothesis 1 proposed in this chapter is examined. It identifies the KM trend in the West and examines theoretical arguments on KM in relation to Nonaka's theory. It discusses the limitations of conventional approaches to KM (such as an IT-driven approach) in terms of the integrated framework of the TEAM linguistic structure and Nonaka's SECI model, which is developed in Chapter 2. It also examines the trans-nationality and applicability of Nonaka's theory to the actual (empirical) context in the UK, using existing case studies. As a conclusion, the trans-nationality and applicability of Nonaka's theory to the KM context in the UK in both theory and practice are assessed.

***Chapter 4: An examination of Systems Theories and Rational Theories of Planning in terms of Nonaka's theory***

This and the following chapter aim to examine the theoretical element of Hypothesis 2, that is, to examine the applicability of Nonaka's theory to the theoretical context of urban regeneration. Instead of urban regeneration literature, this chapter looks in great detail at a set of urban planning theories. The key concept of *rationality* in Systems Theories and Rational Theories of Planning is examined in terms of the TEAM linguistic framework, while knowledge utilized in these theories is investigated in terms of Nonaka's SECI model. Two types of rational planning models; namely, an organizational structure model of planning agencies and a three-phase operational model of planning agencies suggested by an advocate of a rational theory of planning are also examined in relation to Nonaka's theory. As a conclusion of the chapter, the

applicability of Nonaka's theory to the context of urban planning is evaluated and ultimately urban regeneration is discussed.

***Chapter 5: An examination of Communicative Planning in terms of Nonaka's theory***

This chapter, like the previous chapter, aims to examine the theoretical element of Hypothesis 2, using *Communicative Planning*, which may have affinities with the collaborative partnership approach to urban regeneration. It identifies the significance and limitations of Communicative Planning in terms of the TEAM linguistic framework, focusing on several fundamental concepts of Communicative Planning (such as communicative rationality) and examines the treatment of knowledge and knowledge creation in Communicative Planning in relation to Nonaka's SECI model. An organizational structure of Communicative Planning is also examined using the TEAM linguistic structure and the guides for strategy making activity suggested by an advocate of Communicative Planning are investigated in conjunction with Nonaka's organizational structure for knowledge creation. As a conclusion, the applicability of Nonaka's theory to the context of urban planning is evaluated and ultimately urban regeneration is discussed.

***Chapter 6: An examination of the applicability of Nonaka's theory in the empirical context of UK urban regeneration: A case study of the Creative Town Initiative in Huddersfield***

This chapter aims to examine the empirical part of hypothesis 2, namely, to examine the applicability of Nonaka's theory in the practical context of UK urban regeneration. This is done in the form of illustration of Nonaka's theoretical frameworks in the UK urban regeneration context. To do so, the case study research is selected as a methodology and the Creative Town Initiative (CTI) in Huddersfield chosen as a case study site where CTI in Huddersfield is seen as a strategy making organization for urban regeneration and the processes of making the CTI proposal and its previous and sequential events are seen as knowledge spirals (or knowledge-creating processes). The research design and methodology employed in this case study will be discussed in some detail. As a

conclusion of the chapter, the applicability of Nonaka's theory to the empirical context of UK urban regeneration is assessed.

### ***Chapter 7: Conclusions***

This chapter summarizes the findings from the previous chapters and draws conclusions from them and evaluates the applicability of Nonaka's theory to the UK regeneration context where epistemology and ontology are given particular attention. The limitations of this research and future work are also discussed.

Figure 1-7 presents the flow chart of thesis research as a whole.

**Figure1-7: Flow chart of thesis research**

An examination of the trans-nationality and applicability of Nonaka's theory of organizational knowledge creation to urban regeneration in UK

## Chapter1

### Introduction (Research Outline)

(1) Setting the scene (2) Research aim, objectives and the reasons for choosing Nonaka's theory (3) Theme, hypotheses and assumptions (4) Research problems and the scope of this research (5) Criteria of theoretical analysis (6) Potential contributions (7) Data collection (8) Outline of research



## Chapter2

### To examine the validity of the hypotheses-formulation of this research

**An examination of Nonaka's theory in terms of the TEAM linguistic framework and of its trans-nationality and applicability in organization studies in the West**

(1) Introduce and examine Nonaka's theory in terms of the TEAM linguistic framework (to examine the validity of the hypothesis-formulation of this research)  
(2) Examine the trans-nationality and applicability of Nonaka's theory to *the theoretical context of organization studies in the West*



## Chapter3

### To examine Hypothesis 1

**An examination of the trans-nationality and applicability of Nonaka's theory in the Knowledge Management context in UK**

(1) Identify the discourse(s) of KM in West and their relationships to Nonaka's theory  
(2) Examine the research which focuses on knowledge per se in the KM context and their relationships to Nonaka's theory  
(3) Examine the trans-nationality and applicability of Nonaka's theory to the actual context of KM in UK



## Chapter4

### To examine Hypothesis 2

**An examination of Systems Theories and Rational Theories of Planning in terms of Nonaka's theory**

(1) Examine Systems Theories and Rational Theories of Planning in terms of Nonaka's theory  
(2) Examine the applicability of Nonaka's theory to the theoretical context of urban planning and ultimately urban regeneration

## Chapter5

**An examination of Communicative Planning in terms of Nonaka's theory**

(1) Examine Communicative Planning in terms of Nonaka's theory  
(2) Examine the applicability of Nonaka's theory to the theoretical context of urban planning and ultimately urban regeneration

## Chapter6

**An examination of the applicability of Nonaka's theory in the empirical context of UK urban regeneration: A case study of the Creative Town Initiative in Huddersfield**

(1) Introduce methodology taken  
(2) Illustrate Nonaka's theoretical frameworks using the Creative Town Initiative in Huddersfield  
(3) Evaluate the applicability of Nonaka's theory to UK urban regeneration



## Chapter7

### Conclusions:

(1) Nonaka's theory as a comprehensive theoretical frameworks in a KM context in UK  
(2) Nonaka's theory as a juxtaposition in the theoretical context of urban planning  
(3) Nonaka's theory as a practical framework for knowledge activities in the process of making urban strategy in UK urban regeneration  
(4) Contributions, research limitations and future research

## CHAPTER 2: AN EXAMINATION OF NONAKA'S THEORY IN TERMS OF THE TEAM LINGUISTIC FRAMEWORK AND OF ITS TRANS-NATIONALITY AND APPLICABILITY IN ORGANIZATION STUDIES IN THE WEST

### 2.1 Introduction

Chapter 1 has argued for the relevance and importance of Nonaka's theory to urban regeneration in the UK (see Chapter 1). The main aims of this chapter are divided into three. Firstly, the wide-ranging concepts and models of Nonaka's theory of organizational knowledge creation are presented in detail and summarised, and cover its four fundamental dimensions; namely, (1) *epistemological*, (2) *ontological*, (3) *conditional* and (4) *temporal*. These concepts and models will be utilized throughout this research analysis. Secondly, the hypothetical validity of Nonaka's theory itself will be examined in terms of the TEAM linguistic framework introduced in Chapter 1. Thirdly, Nonaka's theory will be considered, examined and compared with extensive related literature, namely, the literature of organization studies in the West.<sup>1</sup> This will be done in order to identify the trans-nationality and applicability of Nonaka's theory to a theoretical context of organization studies related to knowledge. In order to accomplish these aims, an extensive range of literature from organization theory and strategic management, including Nonaka's work, will need to be collected, presented and critiqued. The examination in this chapter will provide the grounding for the application of Nonaka's theory when applied to the field of urban regeneration in the UK, and will in particular follow the pattern outlined in Figure 1-6 in Chapter 1.

Section 2.2 presents and discusses *traditional epistemology* in the theoretical context of organization studies in the West while section 2.3 and section 2.4 focus on Nonaka's concept of knowledge, including *epistemology* and *ontology*, and examine them in relation to the associated arguments prevailing in the West and evaluate them using the criteria of the TEAM linguistic framework. Section 2.5 and 2.6 examine the concepts in the *SECI model*, which represents Nonaka's main theoretical body and again this is

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<sup>1</sup> Throughout this research the term *West* is referred to as post-industrialized countries of European origin such as North America, Western Europe, Australia and Canada.

achieved by using the TEAM linguistic framework. The SECI model is then considered in relation to the related literature of organization studies in the West. Section 2.7 presents *Nonaka's five-organizational conditions* which may facilitate the processes of knowledge creation in conjunction with related literature from the West. In section 2.8 *Nonaka's five-phase model of organizational knowledge creation* is presented.

## **2.2 Examining traditional epistemology in the West**

### ***Epistemology: The origin and nature of knowledge***

The dictionary definition of epistemology is 'that division of philosophy that investigates the origin and nature of knowledge' (Spender, 1998). The major breakthrough of Nonaka's theory of organizational knowledge creation has to do with this epistemological dimension (Magalhães, 1998). Although, the epistemology of Nonaka's theory can be, as will be expanded in section 2.3, differentiated from traditional Western epistemology, it is pertinent to critically review the Western tradition of epistemology in organization studies. This will then enable Nonaka's epistemological assumption to be better cross-examined in relation to the Western tradition.

### ***Western traditional epistemology***

One of the most influential theorists who devoted a great deal of time to working on organization theory in terms of epistemology was Herbert Simon (see e.g. 1976).<sup>2</sup> His work was greatly influenced by the development of the computer and cognitive science and he (1976) viewed an organization as an 'information-processing machine' in his scientific theory of problem solving and decision-making. Simon believed that because human capacity is inherently limited, often referred to as 'bounded rationality', the organization can expand its rationality by systematically but simply dividing work into specialized boundaries, and efficiently developing communication systems. Moreover, he argued that perception and imagery could be handled in terms of 'propositional, digital encoding' (Goldman, 1986, p254) and thus assumed that all information can be *codified*. For Simon, implicit knowledge, such as nonlinguistic mental processes and

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<sup>2</sup> For a brief review of organization theory on rationalism including Simon, see Reed (1996).

behavioral knowledge, is nothing more than ‘noise’<sup>3</sup> (Nonaka & Takeuchi, 1995) and he implied that in terms of epistemology, there is only one type of information (or knowledge) and therefore no difference exists between knowledge, information and data.

### ***The roots of western epistemology***

A number of Japanese authors (see e.g. Saeki, 1985; Nonaka & Takeuchi, 1995; Takeuchi, 2001) have suggested that the modern rational view of knowledge propounded by Simon, which has been dominant in the field of organization studies, is rooted in the work of Rene Descartes (2000). Takeuchi (2001) claims that Western philosophy has *a tradition of dualism* which separates ‘the subject who knows (*the knower*)’ from ‘the object that is known (*the known*)’, also *mind* and *body*, and *reason* and *sense*. Takeuchi also claims that Descartes considered that ‘true’ knowledge is knowledge that is acquired only through *reason* or *mind* and therefore knowledge that can be acquired though *sense* or *body* is ignored. The kind of thinking which places emphasis on only reason (and mind) is called *rationalism*. Another influential Japanese thinker, Saeki (1985) lends support to this argument, and states that although scholars through the ages from the Greek civilization to those in the middle ages attempted to strike a balance between *sense* and *reason* in their epistemology, modern scholars in the West ignored *intuitional ability*, which is related to sense and body, emphasizing *logical ability*, which is related to reason and mind. This modern Cartesian-like rationalist view of knowledge is called *monist epistemology* because it acknowledges only one dimension of knowledge of the dualism (see Spender 1996, 1998). These arguments have been supported by Western theorists such Spender (1998) who argue that there are the prevailing western academic conventions, which assume a separation of the knower and the known, and focus on objects rather than our perceptions. In the same context, Spender (1996) argues that a number of organizational theorists have built their theories by adopting a Cartesian-like rationalist view of knowledge, which suggests that

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<sup>3</sup> Nonaka (Nonaka & Takeuchi, 1995) claims that in order to place too much emphasize on the logical aspect of decision-making, Simon ignored implicit knowledge as ‘noise’. The word ‘noise’ possibly means things useless in this context.



Cartesian-like rationalism has been the mainstream of Western epistemology and has had and continues to have a major influence on organizational theorists in the West.

### ***Limitations of the Cartesian-like epistemology***

Recently, a number of European and American academics engaged in research related to organization theory (see e.g. Spender, 1998; Swan, et al, 1999; Swan et al, 2000) have claimed that this kind of Cartesian-like monist epistemology, mentioned earlier, is in some respects problematic in the organizational context and this is so because the Cartesian-like rationalist view fails to take into account the significance of pre-existing organizational structures, norms and cultural values (Swan et al., 1999). It is also problematic because the epistemology views a human being as rational and cannot therefore shed light on non-rational activities such as *innovation* and *trust* in the organization (see Swan et al., 1999). Finally, it poses problems because the processes through which knowledge is created within an organization cannot be explained (see, Spender, 1998). As will be argued later, Nonaka gives attention to both sides of the contrasting epistemological positions within the two categories (see section 2.3.2).

## **2.3 Examining the epistemology of Nonaka's theory**

### **2.3.1 Definition of knowledge**

#### ***Justified true belief***

It is evident from ongoing debates within the literature that 'knowledge' as a term is intrinsically ambiguous and equivocal.<sup>4</sup> In spite of the complex nature of knowledge, the western traditional definition accepts that it represents a *justified true belief*, which is a concept that was first propounded by Plato in his 'Meno, Phaedo, and Theaetetus'. Whilst Nonaka (Nonaka & Takeuchi, 1995) has taken different epistemological assumptions from those employed by western orthodox theorists of organization such as Simon (1976), he does, in principal, employ the same definition of knowledge as a 'justified true belief' within the western traditional view.

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<sup>4</sup> The history of philosophy since the classical Greek period can be regarded as a never-ending search for the meaning of knowledge. Nonaka critically reviews philosophical debates regarding knowledge in the Western historical context, see Nonaka & Takeuchi (1995).

### ***Emphasis on a 'belief' and the 'justification' rather than 'truthfulness' of knowledge***

The difference in the definition of knowledge between Nonaka and the Western tradition is in its emphasis. Nonaka (1994; Nonaka & Takeuchi, 1995) claims that the argument of the traditional epistemology in the West focuses on *truthfulness* and that a personal *belief* and the *justification* of knowledge should receive more emphasis when translated to the organizational context. In the case of Nonaka, the emphasis is on dynamic and subjective aspects, rather than the static and objective nature of a human being, and claims that a personal 'belief' and the 'justification' between members in an organization play crucial roles in creating knowledge. In this respect, Nonaka also suggests that too much emphasis on 'truthfulness' reduces creative activities in an organization.

### ***Knowing through human activities***

Recently, the emphasis on the humanistic dimension of a personal 'belief' and the communicative dimension of the 'justification' of knowledge in the organizational context is supported by researchers in the UK such as Galliers & Newell (2000) and Blackler (1995). Galliers & Newell (2000) argue that a 'belief' is, by definition, a human phenomenon and that in the organizational context 'truth' is socially constructed (and justified) through interaction between individuals and groups. Blackler (1995) emphasizes 'knowing as a process' in an organization, pointing out the situated, provisional and reflexive nature of knowledge. What they emphasize is, that knowledge in the organization is related to commitment, human action and is also context-specific, which is consistent with Nonaka's theory. Table 2-1 presents some working definitions of knowledge in the organization and these pay more attention to the practical rather than theoretical aspect of the definition.

Table 2-1: Other definitions of knowledge in the context of organization studies in the West (Source: Author)

*Knowledge* is a fluid mix of contextual information, values, experience, and rules. It comes in many forms, including process knowledge (how-to), catalog knowledge (what is), and experiential knowledge (what was). All of these types are similarly generated, codified, and transferred. (Ruggles, 1997)

*Knowledge* is a fluid mix of experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories, but also in organizational routines, processes, practices, and norms. (Davenport & Prusak, 1998)

### ***Knowledge and information***

When comparing *knowledge* to *information*, Nonaka (Nonaka & Takeuchi, 1995, p15) cites ‘information is a flow of messages, while knowledge is created and organized by the very flow of information, anchored on the commitment and beliefs of holders’. This differentiation between knowledge and information is supported by the arguments of Machlup (1983) and Dretske (1981). Dretske (1981, p44, 86) argues that ‘Information is a commodity capable of yielding knowledge’ and that ‘Knowledge is identified with information-produced (or sustained) belief’. More recently, Burton-Jones (1999) makes the claim that knowledge is a commodity that is generated by processing information provided as material in a human brain. However, unlike Simon (1976), Nonaka as well as Machlup, Dretske and Burton-Jones differentiate between knowledge and information, although they acknowledge that knowledge and information are closely related concepts.

### **2.3.2 Two types of knowledge**

#### ***Tacit and explicit knowledge***

Importantly, Nonaka (1991; 1994; Nonaka & Takeuchi, 1995) assumes that there are two types of knowledge; namely, *tacit* and *explicit knowledge*. This notion was first defined by Michael Polanyi (see 1966) who emphasised more tacit knowledge, than explicit knowledge, claiming ‘We can know more than we call tell’ (1966, p4). What the

author meant by this is that knowledge as expressed in words and numbers, is explicit knowledge, and thus so to speak, covers only the tip of the iceberg of the entire body of (both tacit and explicit) knowledge. In this sense, it can be said that Nonaka takes a *pluralist (or dualist) epistemology* due to the dualistic view of tacit and explicit knowledge, rather than the Cartesian-like monist epistemology which Simon (1976) took, considering all knowledge to be explicit. In other words, Nonaka incorporates epistemological positions, *the knower* and *the known*, *mind* and *body*, *reason* and *sense* into his theory by distinguishing between tacit and explicit knowledge (see Table 2-2 also see section 2.2). Apart from Nonaka, these definitions have been widely cited within the literature of organization studies related to knowledge not only in the USA, but also in European countries (see e.g. Nahapiet & Ghoshal, 1998; von Krogh, 1998; Seufert et al, 1999; Baumard, 1998; Lam, 2000; Swan et al., 2000; Robertson et al., 2000; Johannessen et al, 2001; Walsham, 2001). Table 2-2 shows features of two types of knowledge.

Table2-2: Two types of knowledge (Author: Nonaka & Takeuchi, 1995)

<b>Tacit Knowledge</b> (Subjective)	<b>Explicit Knowledge</b> (Objective)
The known Body Sense (Knowledge of experience) Simultaneous knowledge (Here and now) Analog knowledge (Practice)	The knower Mind Reason (Knowledge of rationality) Sequential knowledge (There and then) Digital knowledge (Theory)

### ***Tacit and explicit knowledge and the TEAM linguistic framework***

The above distinction between tacit and explicit knowledge is equivalent to Rye's famous distinction of 'knowing how' and 'knowing what' (Nahapiet & Ghoshal, 1998). Spender (1996), however, suggests that the notion of tacit, rather than know-how, is richer because it can explain a post-Freudian psychological dimension that goes beyond conscious knowledge and into the sub- and pre- conscious modes of knowing. The distinction between tacit and explicit knowledge is also approximately in line with the distinction between the vertical axe of *implicitness* / *explicitness* in the TEAM linguistic

framework introduced in Chapter 1 (see section 1.5, specially Figure 1-2).

### ***Explicit knowledge***

According to Nonaka (see 1991, 1994; Nonaka & Takeuchi, 1995), *explicit (or codified) knowledge* refers to knowledge that is transmittable in formal, systematic language. In other words, it can be expressed in words, numbers and diagrams, and shared in the form of data, scientific formulae, manual and the like. This kind of knowledge is generally equated to information, which was assumed by Simon (1976).

### ***Two dimensions of tacit knowledge***

On the other hand, *tacit knowledge* is highly personal and context-specific, and therefore, it makes it difficult to communicate or share with others and therefore, it can only be acquired and exchanged through non-verbal communication, such as experience and observation. Whilst Polanyi argued the contents of tacit knowledge from a philosophical context, Nonaka expands the theory of tacit knowledge in a more practical direction (see 1991, 1994; Nonaka & Takeuchi, 1995). The assumption made by Nonaka is that there are two dimensions to tacit knowledge (Table 2-3), the first being the *technical dimension*, which covers concrete know-how, crafts, and skills that apply to specific contexts, while the other dimension of tacit knowledge is a *cognitive dimension*, which consists of beliefs, perceptions, ideals, values, emotions and mental models. This dimension of tacit knowledge helps individuals to perceive and define their world.

Table2-3: Two dimensions of tacit knowledge (Source: Author)

<b>Tacit knowledge: technical dimension</b>	<b>Tacit knowledge: cognitive dimension</b>
how-how, crafts and skill	beliefs, perceptions, ideas, values, emotions and mental models (schemata, paradigms, perspectives and view points).

## 2.4 Examining the ontology of Nonaka's theory

### *The locus of knowledge*

In Nonaka's theory, the 'ontological' dimension, which is concerned with the levels of knowledge-creating entities, is as important as the epistemological dimension because Nonaka looks at knowledge creation in the context of the organizational activity, rather than of the individual activity. Nonaka (Nonaka & Takeuchi, 1995) differentiates knowledge in an organization into four entities; *individual*, *group*, *organizational*, and *inter-organizational*. Figure 2-1 combines these four levels of the ontological with the epistemological dimension (explicit and tacit knowledge).

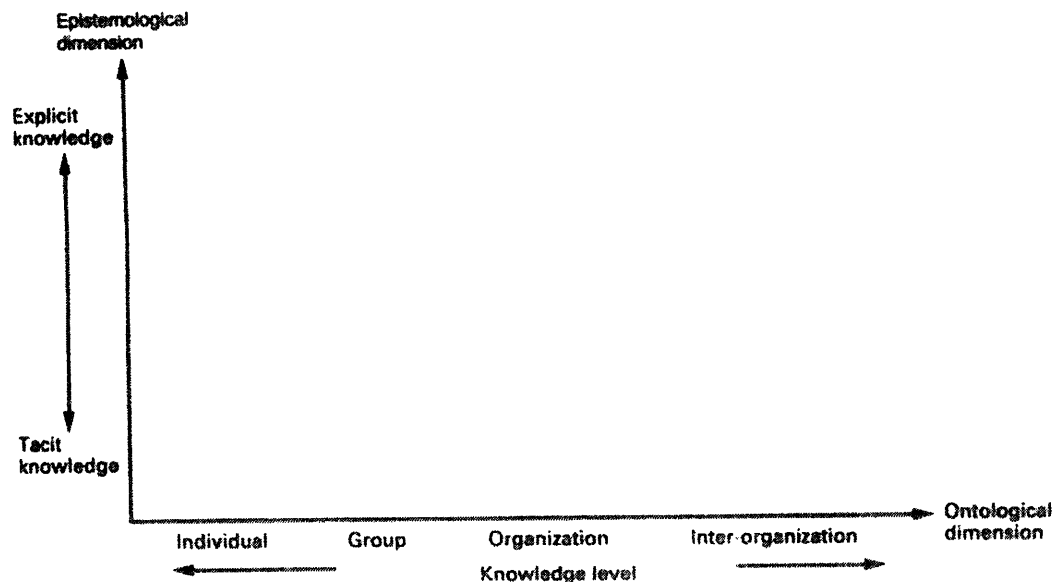


Figure2-1: Two dimensions of knowledge creation (Source: Nonaka & Takeuchi, 1995)

It suggests that organizational knowledge dynamically moves from a lower (individual) ontological level to higher levels through the interaction between tacit and explicit knowledge, the mechanism of which is explained later.

### ***Criticisms of the ontological dimension in Nonaka's theory***

In relation to the ontological dimension, Nonaka (Nonaka & Takeuchi, 1995) assumes that knowledge is basically *created* by individuals, while it is 'organizationally' *amplified*, *crystallized* and also *internalized* as a part of the knowledge network of the organization. The emphasis placed by Nonaka on individuals as the knowledge-creating entity and its diverse classification of the ontological level have attracted a great deal of critical attention from a number of western theorists related to organizational knowledge (see e.g. Blackler, 1995; Spender, 1998). For example, Blackler (1995) criticizes Nonaka's approach for being rather traditional because Nonaka claims that knowledge is a specific entity, formed in the minds of individuals, rather than of groups. This criticism is supported by Spender (1996, 1998) who argues that Nonaka's distinction of ontology is narrow and shaky because he dismisses the individual/organizational dichotomy, assuming that only the individual thinks. In contrast to Nonaka, Spender emphasizes the importance of *collective knowledge*, which is defined as social, implicit knowledge, rather than individual knowledge, pointing out the existence of the western academic tradition, such as the work of Durkheim and Halbwachs in sociology, that emphasizes *social knowledge* (see e.g. Durkheim, 1964; Halbwachs, 1992).

### ***Applying a linguistic theory to the ontological argument***

In applying the (TEAM) linguistic framework introduced in section 1.5 (see Figure 1-4) to the arguments on the different emphasis in ontology between Nonaka and Spender and Blackler the results have been most interesting (see Figure 2-2).

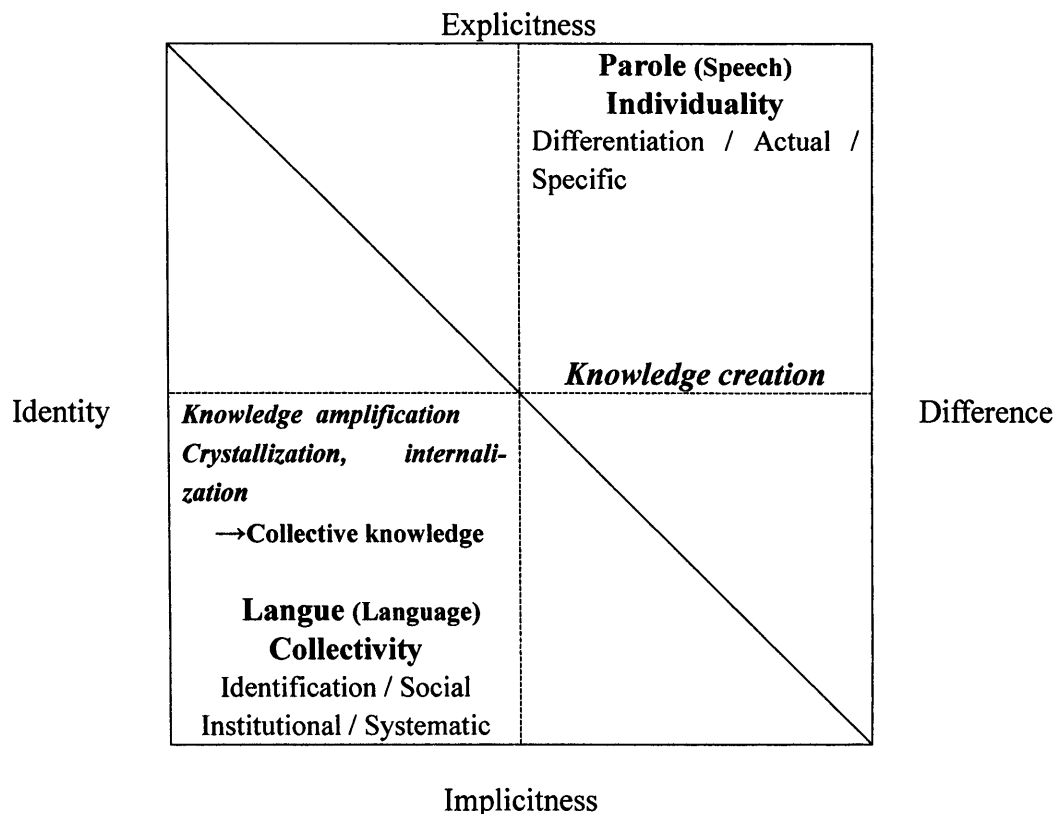


Figure2-2: Ontological dimension of the linguistic framework and knowledge creation (Source: Author)

Figure 2-2 suggests that it is, as Spender (1996, 1998) and Blackler (1995) pointed out, crucial to pay attention to the implicit, collective knowledge because it constitutes the institutional framework of an organization as a (systematic) knowledge base, which presents and develops latent organizational capacity. This corresponds to *Langue* in Saussure's terms and in line with Nonaka's idea that knowledge is organizationally *amplified, crystallized* and also *internalized*. However, since *knowledge creation* is an activity that creates new knowledge (new words), that is, differentiates it from existing knowledge in a specific, actual context, it also has to lie heavily on an individual activity. This corresponds to *Parole* in Saussure's terms and in line with Nonaka's ideas of *knowledge creation* based on individual creativity. In short, the knowledge activity in an organization has a *dualistic* nature, which includes not only an institutional, identified dimension (*Langue*) but also a specific, differentiating dimension (*Parole*) as Nonaka assumes. This analysis in turn, suggests that in the dimension of new knowledge creation, Nonaka's assertion of the emphasis on individuals as *creating*



subjects is valid in terms of the linguistic perspective and shows the theoretical limitations of Spender and Blacker.

## 2.5 Examining Nonaka's SECI model in terms of the TEAM linguistic framework and in organization studies in the West

Premised on his epistemology and ontology as discussed earlier, Nonaka (1991, 1994; Nonaka & Takeuchi, 1995) places emphasis on the creative interaction of explicit and tacit knowledge as a social process and identifies the *four modes of knowledge conversion* as organizational knowledge activities; namely, (1) the *Socialization* mode, (2) the *Externalization* mode, (3) the *Combination* mode and (4) the *Internalization* mode (see Figure 2-3), which he called the *SECI model*.

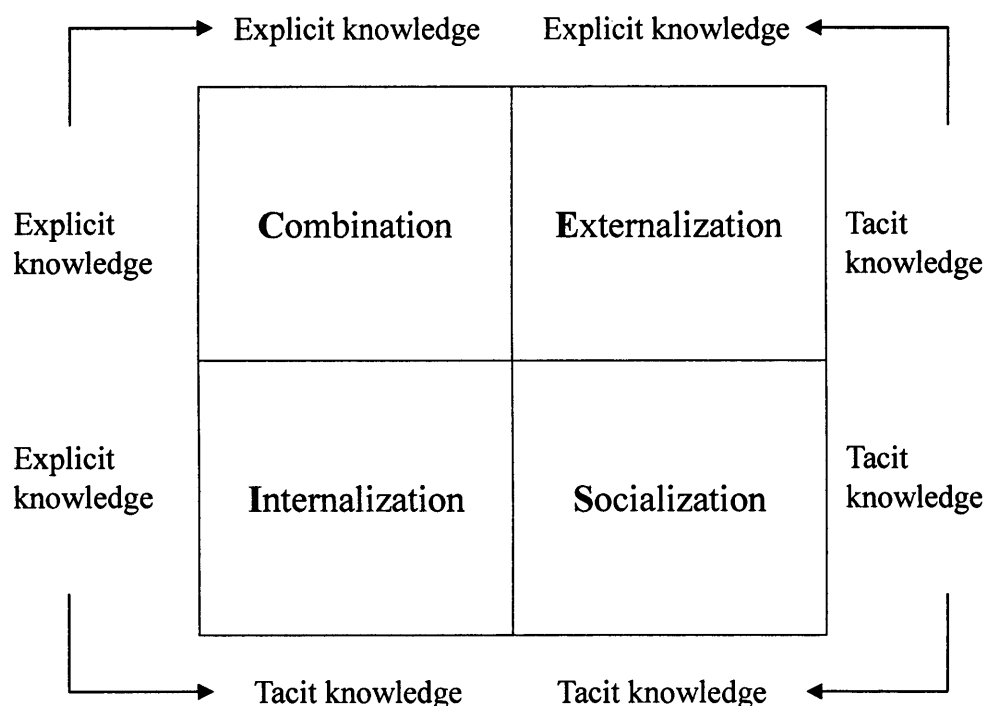


Figure2-3: Nonaka's SECI model: Four modes of knowledge conversion (Source: Nonaka & Takeuchi, 1995)

The following introduces and examines Nonaka's four modes of knowledge conversion in terms of the TEAM linguistic framework and in relation to the theoretical arguments

in organization studies in the West.

### **2.5.1 The socialization mode of knowledge conversion**

#### ***Cognitive dimension of socialization mode***

According to Nonaka, *the socialization mode of knowledge conversion* is ‘*the knowledge-creating mode of converting tacit knowledge to tacit knowledge*’ (see Figure 2-3). The assumption that two dimensions of tacit knowledge; namely, cognitive and technical, exist, as mentioned earlier (see section 2.3), gives rise to two types of socialization modes of knowledge conversion. In the former, the *socialization* mode of knowledge conversion is *a process of sharing experience and thereby creating common tacit knowledge* (such as shared mental models, including schemata, paradigms, perspectives, beliefs, and viewpoints). Informal activities (such as having a cup of tea or lunch with colleagues outside the workplace) are exemplified as this type of socialization mode because it promotes common understanding (such as perspectives and viewpoints or feelings), shares systems of meaning, teaches own roles and builds mutual trust in an organization through the sharing of experience. On these occasions, although language or dialogue is often effectively used, Nonaka pays more attention to *physical proximity*, rather than verbal communication of transmitting its language.

#### ***The technical dimension of socialization mode***

In the latter, the socialization mode of knowledge conversion is *a process of transferring or accumulating tacit knowledge* such as technical skills (e.g. how to ride a bicycle) from one to another through a mixture of observation, imitation, narration, experimentation, and joint execution in an organization or beyond organizations (e.g. customers and suppliers) (von Krogh, Ichijo & Nonaka, 2000). As Nonaka argues, a traditional apprenticeship is exemplified as this type of socialization mode because apprentices work with their masters and can learn craftsmanship *not through language* (or written documents) but through observation, imitation, and practice. Nonaka calls knowledge created by a socialization process *sympathized knowledge*.

### ***The socialization mode within TEAM linguistic framework***

It is interesting to link the socialization mode of knowledge conversion to the TEAM linguistic framework (see Figure 1-2 & 1-5). It is apparent that the socialization mode of knowledge conversion approximately corresponds to the function of *accumulating* (A) language meaning (or the social language of *Role*) in the TEAM linguistic framework (see Figure 2-4). This is because it can be an *implicit* (tacit) activity, *accumulating differentiated* experience from others while sharing feelings. It is also because it can create order from chaos through repeated interactions, participants recognizing their *roles* in a group (or an organization). Figure 2-4 also suggests that while the technical dimension of the socialization mode of knowledge conversion tends to be at the *individual* level, the cognitive dimension of the mode tends to be at the *collective* level because of its ontological nature, which is consistent with Nonaka's assumption (see Nonaka & Takeuchi, 1995).

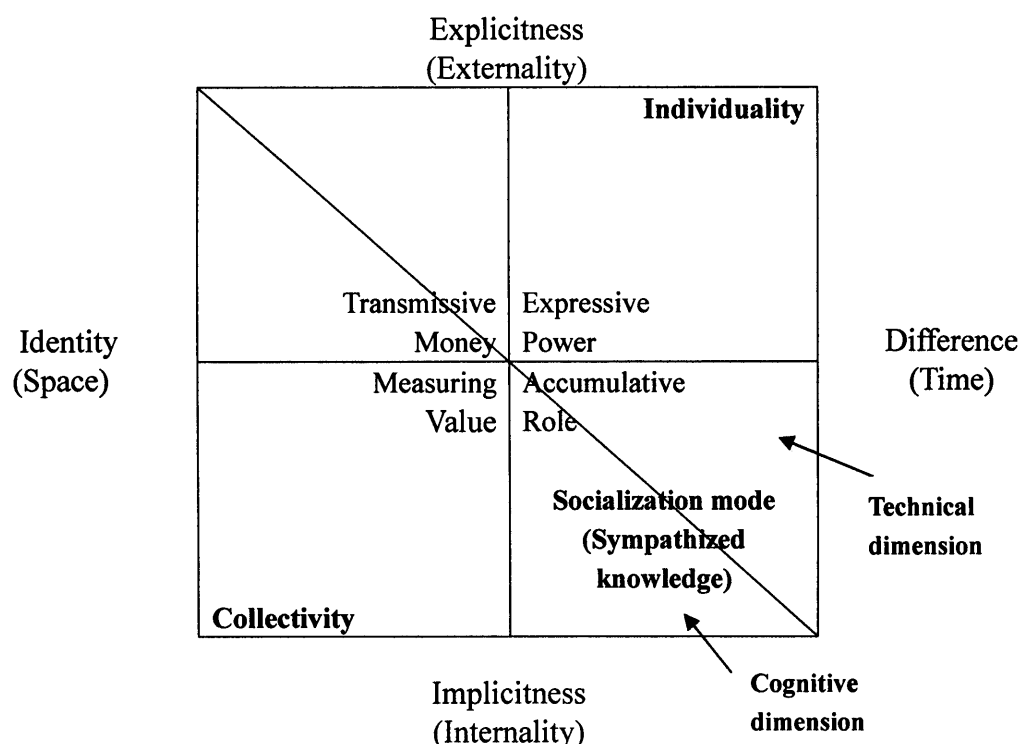


Figure2-4: Socialization mode within TEAM linguistic framework (Source: Author)

### ***The socialization mode in the West***

Whilst Nonaka (Nonaka & Takeuchi, 1995) claims that socialization as the mode of knowledge conversion is strongly practised by Japanese firms, recognition of the

importance of sharing experience in the face-to-face environment in business settings can be found in the literature on organization theory in the West. For example, Penrose (1959) in her classic work argued that the only way teamwork can be developed is through a collection of individuals who have had experience of working together. More recently, Swan et al. (1999) assert that without physical proximity, where people can have an opportunity to engage in face-to-face interaction, firms that focus on the use of Information and Communication Technologies (ICTs) lose opportunities to share crucial knowledge. These discussions presented by western researchers implicitly or explicitly highlight the significance of the socialization mode of knowledge conversion in the form of face-to-face communication.

### ***Socialization and social capital***

Interestingly enough, the emerging research topic of *social capital* in the West also seems consistent with the cognitive dimension of the socialization mode of knowledge conversion. For example, Fukuyama (1997, p4), defining *social capital* as ‘the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them’ suggests that social capital can be generated through *the repeated interactions* of individual agents (as well as exogenously through the introduction of a new set of moral norms). In their review on social capital in an organizational context, Nahapiet & Ghoshal (1998) also claim that norms of cooperation can establish a strong foundation for the creation of knowledge, regarding it as a degree of consensus in the social system. From these theoretical arguments, it is obvious that the assertions made by western theorists related to social capital and knowledge in the theoretical context of organization studies are consistent with the socialization mode of knowledge conversion in Nonaka’s terms.

Taking into consideration the recent increase in interest in social capital and the growing acknowledgement of the importance of the sharing of experience (therefore tacit knowledge) based on physical proximity and face-to-face communication environments within and between organizations, it can be concluded that the socialization mode of

knowledge conversion has now become increasingly crucial in the theoretical context of organization studies in the West.

### **2.5.2 The externalization mode of knowledge conversion**

#### ***Tacit to explicit knowledge***

Nonaka argues that the *externalization mode of knowledge conversion* is ‘a process of making tacit knowledge explicit’ (see Figure 2-3). This is typically characterized by *the concept creation*, which is an activity that generates an abstract principle, for example, for making a new product or service. Nonaka claims that it is a quintessential process because it ultimately results in the advancement of a business through a new product, process, or service (Nonaka and Takeuchi, 1995; von Krogh, Ichijo & Nonaka, 2000). Nonaka (Nonaka & Takeuchi, 1995) calls the knowledge created by an externalization process *conceptual knowledge*.

#### ***The externalization mode within TEAM linguistic framework***

It is apparent that the externalization mode of knowledge conversion, which is an activity to make individuals explicitly express the desire or need to create concepts, approximately corresponds to the function of *expressing* language meaning (or the social language of *Power*) in the TEAM linguistic framework (see Figure 2-5, also Figure 1-2 & 1-5). This is because it can be an *explicit* activity, *expressing* something based on ones own *differentiated* experience from those of others. It is also because it can create order from chaos in the name of ‘future’ using *individual* imagination. Indeed, Nonaka (Nonaka & Takeuchi, 1995) argues that when people try to conceptualize an image, that is, to make tacit knowledge explicit, they express its essence mostly in imaginative, rhetorical language such as *metaphors* and *analogy*.

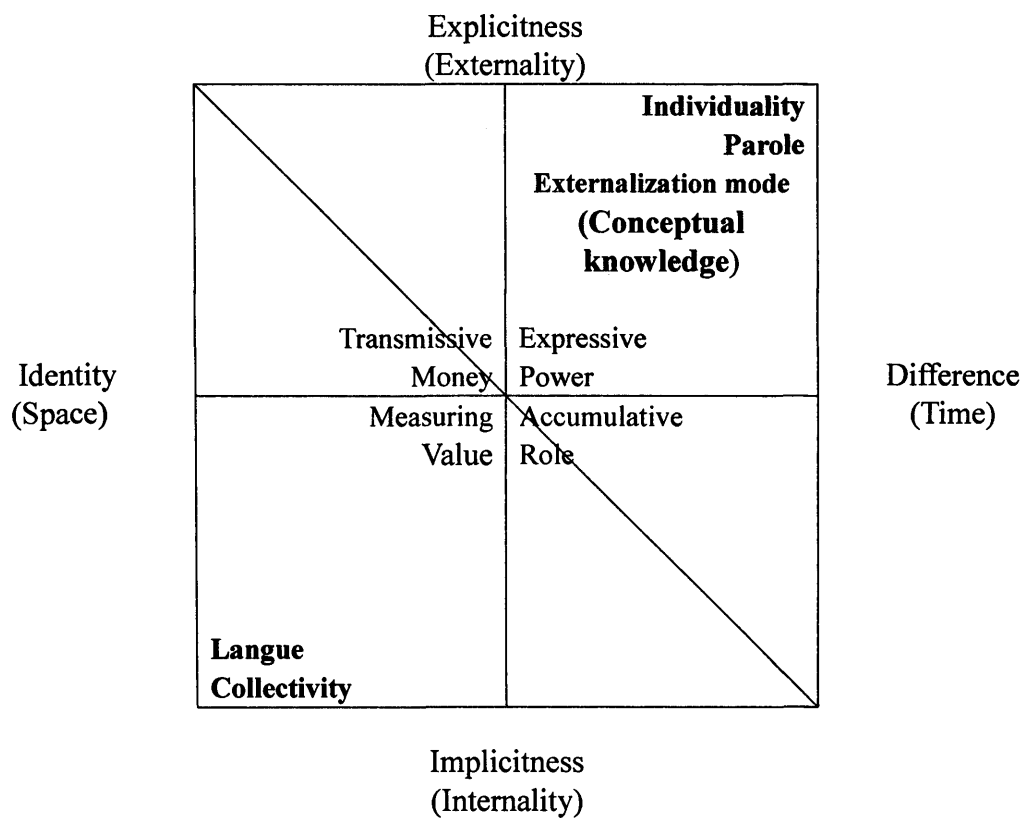


Figure2-5: Externalization mode within TEAM linguistic framework (Source: Author)

Table 2-4 shows cases in which linguistic rhetoric is used when creating concepts for new products in Japanese companies.

Table2-4: Metaphor and analogy for concept creation in product development (Source: Nonaka & Takeuchi, 1995)

Product (Company)	Metaphor/Analogy	Influence on Concept
City (Honda)	Automobile evolution (metaphor)	Hint of maximizing passenger space as ultimate auto development, 'Man-maximum, machine-minimum' concept created
	The sphere (analogy)	Hint of achieving maximum passenger space through minimizing surface area, 'Tall and short car (Tall Boy)' concept created
Mini-Copier (Canon)	Aluminum beer can (analogy)	Hint of similarities between inexpensive aluminum beer can and photosensitive drum manufacture, 'Low-cost manufacturing process' concept created
Home Bakery (Matsushita)	Hotel bread (metaphor) Osaka International Hotel head baker (analogy)	Hint of more delicious bread, 'Twist dough' concept created

Nonaka (Nonaka & Takeuchi, 1995) looks not only at an imaginative but also at a communicative aspect in the externalization mode of knowledge conversion. He assumes that this mode is *triggered* by a dialogue intended to create concepts from tacit knowledge, regarding dialogue as a collective, as opposed to individual, action. The aspect, however, should by nature be incorporated into the combination mode of knowledge conversion, which will be examined in the next sub-section.

### ***Absence of externalization mode in the West***

Whilst the externalization mode of knowledge conversion leads an organization to the biggest ‘bang’ in organizational knowledge creation (Takeuchi, 2001), very little existing literature on organization studies related to knowledge in the West has addressed this dimension (see e.g. Blackler, 1995; Blackler, Crump & McDonald, 1998; Nahapiet & Ghoshal, 1998; Swan et al., 1999). For example, Nahapiet & Ghoshal (1998) set great store by *a shared language* within an organization, considering knowledge to be created and sustained through ongoing relationships in social collectivities and regard language and discourse as a *mediator* of individual actions, which may fit into the category (of the cognitive dimension) of the socialization mode or the combination mode of knowledge conversion in Nonaka’s terms. Blackler, Crump & McDonald (1998) stress that *organizationally systemized language* enables organizational members to operate within interpretive or discourse communities, which may fit into the category of the internalization mode. However, while the above suggests that Western theorists, such as Nahapiet & Ghoshal (1998) and Blackler, Crump & McDonald (1998), only pay attention to the collective and identified dimensions of language (Langue) in relation to knowledge creation in an organization, what they fail to adequately acknowledge is another significant dimension of the expressive, individualistic, differentiated, creative dimensions of language (Parole). Therefore, the authors’ theoretical frameworks cannot include the externalization mode of knowledge conversion in Nonaka’s terms. This appears to be partly because they fail to carefully examine the multifaceted linguistic meaning functions in relation to knowledge in an organization, and partly because they pay scant attention to the

practical processes of knowledge creation in organizations.

### **2.5.3 The combination mode of knowledge conversion**

#### ***Explicit to explicit knowledge***

According to Nonaka, the *combination mode of knowledge conversion* is ‘a process of assembling new and existing explicit knowledge held by individuals into a knowledge system’ (see Figure 2-3 and also see Nonaka et al., 1996, p207). It also a process of exchanging, sorting, adding, disseminating, sharing and therefore reconfiguring different bodies of explicit knowledge among the organizational members through documents, meetings, telephone conversations, computerized communication methods and the like. Nonaka terms the knowledge created through a combination process *systemic knowledge*.

#### ***The combination mode within TEAM linguistic framework***

It is apparent that the combination mode of knowledge conversion approximately corresponds to the function of *transmitting* language meaning (or the social language of *Money*) in the TEAM linguistic framework (see Figure 2-6 & also Figure 1-2 & 1-5). This is simply because combining various types of explicit knowledge does not occur without the *transmissive* nature of knowledge in the *explicit* form, which enables people to share and *identify* with others.



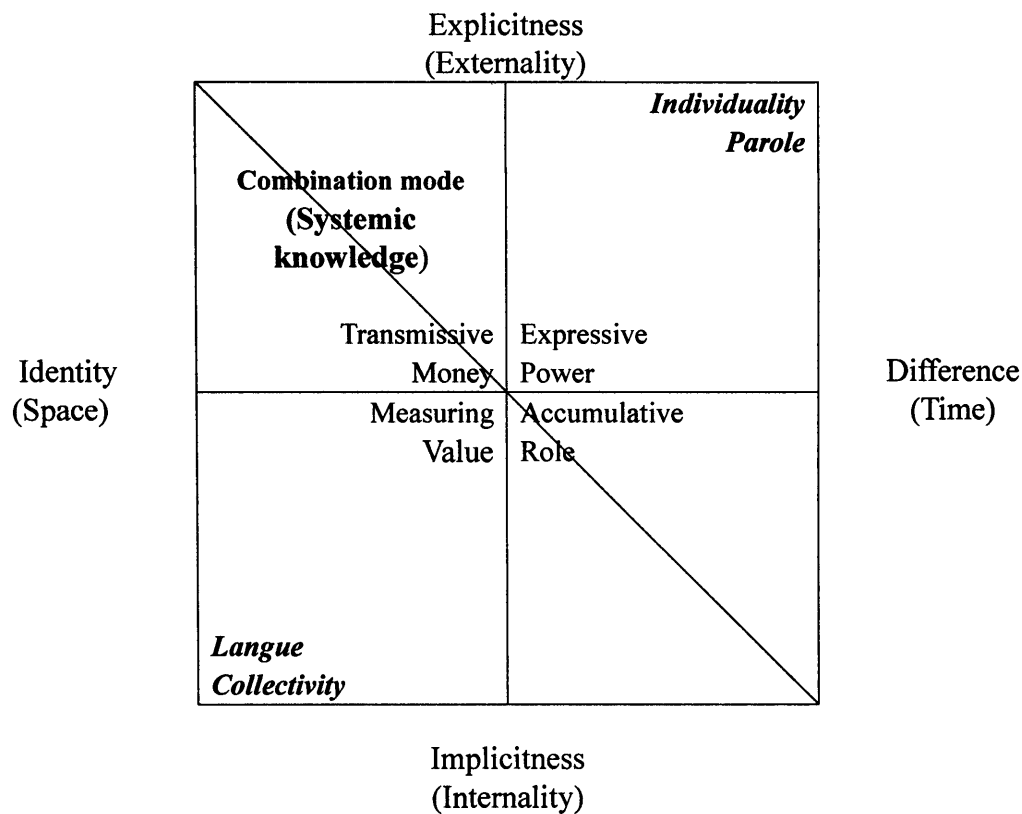


Figure2-6: Combination mode within TEAM linguistic framework (Source: Author)

### ***The combination mode in the West***

With reference to Nonaka's combination mode of knowledge conversion and apart from the emphasis on the communicative aspect of language, which has already been mentioned, a thread can be identified which focuses on the concept of *combination* in the theoretical context of organization studies in the West. This emphasis seems rooted in Schumpeter (1951) who developed a dynamic theory of economic change and viewed 'new combination' as the foundation for economic development. The author indicated that the new combination of knowledge leads to creating new products, production methods, markets, materials, and organizations. More recently, this argument has been taken up by Nahapiet & Ghoshal (1998), who regard combination as a starting point for research on organizational knowledge, and assume that combination, as well as exchange, of knowledge is the key mechanism for creating social knowledge. Whilst Nahapiet & Ghoshal clearly identify two combinations that generate knowledge in an

organization; namely, *the incremental* and *the radical ways*<sup>5</sup>, seen from the TEAM linguistic framework (or Nonaka's theory), the combination mode is related only to a linguistic meaning function (or only one mode of knowledge creation). In other words, compared with Nonaka's theory, Western researchers such as Schumpeter and Nahapiet & Ghoshal (1998) seem to have narrow and limited perspectives of knowledge activities in the organizational context.

### ***Combination mode and Information Technology***

Because of the explicit nature of knowledge in the combination mode of knowledge conversion, which allows information to be processed easily, Information Technology (IT) can play a crucial role. Many researchers in Europe including Scarbrough et al. (1999) and Swan et al. (2001) draw attention to substantial research that claims that computerized communication networks and large-scale databases (such as digging, mining and extracting) can facilitate the combination of knowledge in an organization. Nahapiet & Ghoshal (1998) also point out that recent advances of technology, such as Lotus Notes and the Intranet, have vastly increased the opportunities for *knowledge combination*. Although relationships between IT-based KM and Nonaka's theory will be examined in Chapter 3, it can be noted from the perspective of linguistic theory, that IT can contribute only to the speed-up of transmitting (combining) explicit knowledge (information). In other words, too much emphasis on IT leads one to ignore the importance of other meaning functions of language (other types of knowledge activities) in an organization.

#### **2.5.4 The internalization mode of knowledge conversion**

##### ***Explicit to tacit knowledge***

The *internalization mode of knowledge conversion* is '*a process of embodying explicit knowledge into tacit knowledge*' (see Figure 2-3 and Nonaka et al., 1996, p208) and will include know-how and technical skills. Nonaka (Nonaka & Takeuchi, 1995) suggests that the quintessential tool of the internalization mode is through documentation and

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<sup>5</sup> *The incremental way* is achieved by combining elements previously unconnected, while *the radical way* is achieved by developing novel ways of combining elements not previously associated.

manuals that enable other people to indirectly *embody* what the members of a project experienced. Any other kinds of explicit knowledge such as text, sound, video formats, or oral stories can facilitate the internalization process. Training programmes also help trainees to understand the organization and themselves. Moreover, in relation to other modes of knowledge conversion, Nonaka assumes that the internalization mode comprises the new and (probably) creative experience assembled by members who have been engaged in a project through other knowledge conversion modes of socialization, externalization and combination, which in turn are embodied as organizationally internalized latent value systems or knowledge bases. Nonaka calls the knowledge created by an internalization process *operational knowledge*.

#### ***The internalization mode within TEAM linguistic framework***

The internalization mode of knowledge conversion is approximately consistent with the function of *measuring* (M) language meaning (maintaining latent value) (or the social language of *Value*) in the TEAM linguistic framework (see Figure 2-7 also Figure 1-2 & Figure 1-5). This is because the process enables the members in an organization to *internalize* shared knowledge in an *implicit* (tacit) form, which has a horizon of *identification*, maintaining and developing the latent *value* of the organization.

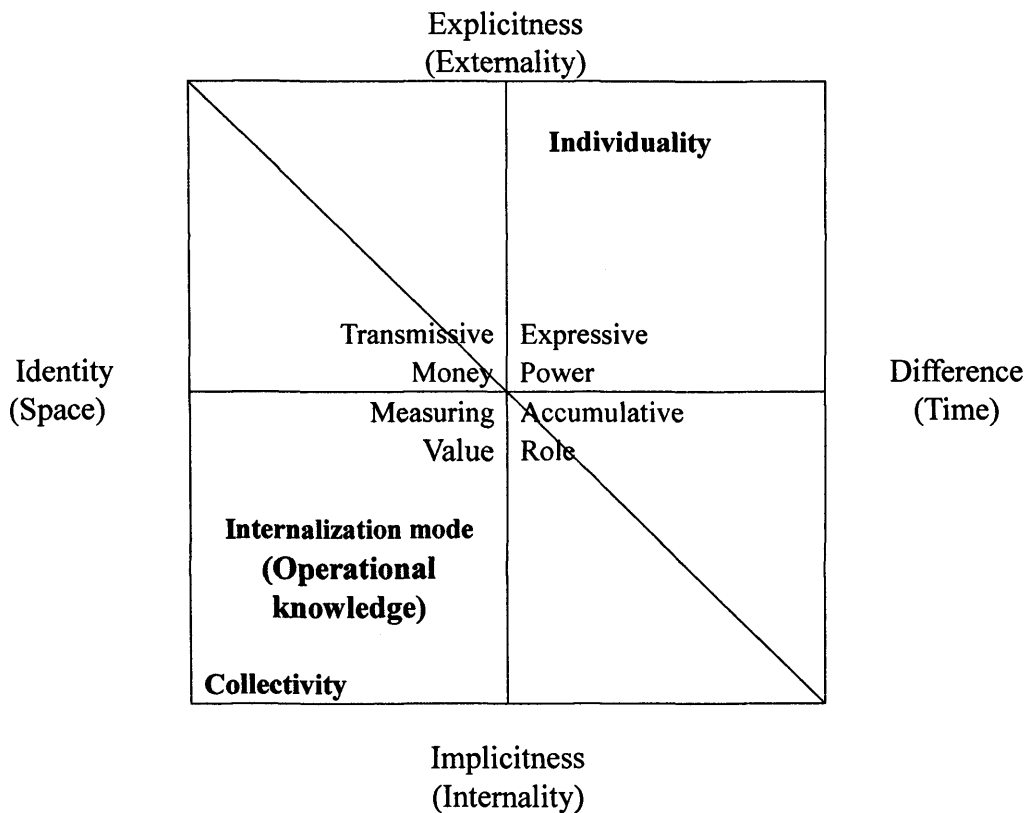


Figure2-7: Internalization mode within TEAM linguistic framework (Source: Author)

When Nonaka argues that operational knowledge embodied through the internalization mode of knowledge conversion takes the form of shared mental models or technical know-how, it appears that there is confusion in his conceptualization and this can be seen between the internalization and socialization modes. However, if the axis of identity (the internalization mode) / difference (the socialization mode) propounded in the TEAM linguistic framework is recognized, they can be conceptually differentiated.

### ***The internalization mode in the West***

Nonaka's internalization mode of knowledge conversion has been clearly identified in the existing literature of organization studies and in the theoretical context in the West and it seems primarily rooted in the concept of *organizational learning*, which was propounded by Argyris and Schön (1978). Their pioneering work on the subject viewed an organization as continuous learning processes that internalize knowledge and adapt to changing environments. This assertion is followed by Cohen & Levinthal (1990) who

in their research on innovation and organizational learning emphasize the importance of (organizational) *absorptive capacity*, which is the ability of a firm to *internalize* new knowledge (and information), as well as clearly recognizing knowledge value and its utilization. More recently, in an attempt to integrate both organizational learning and information technology, Robey et al. (2000) suggest that the internalization of new information into an organization may not only be enhanced through formal activities such as training and action research, but also through activities that are closely related to informal work practices. These arguments are obviously consistent with the claim made by Nonaka for the internalization mode of knowledge conversion that highlights the importance of the linkage of internalization processes and the other processes needed in order to develop and expand the knowledge base of an organization.

## **2.6 Examining the knowledge spiral in terms of the TEAM linguistic framework**

### **2.6.1 The knowledge spiral**

Whilst Nonaka's four modes of knowledge conversion have already been outlined and considered in terms of the TEAM linguistic framework and then examined in the theoretical context of organization studies in the West, Nonaka also assumes that these four modes of knowledge conversion should be linked as *sequential processes* in a *spiral*. This regards knowledge activities in an organization epistemologically as a continuous and dynamic interaction between tacit and explicit knowledge (see Figure 2-8) and ontologically as a communicative amplification and crystallization, as well as organizational internalization and enhancement of individuals' tacit knowledge at different levels or entities (such as individual, group, organization and inter-organization) (see Figure 2-9).

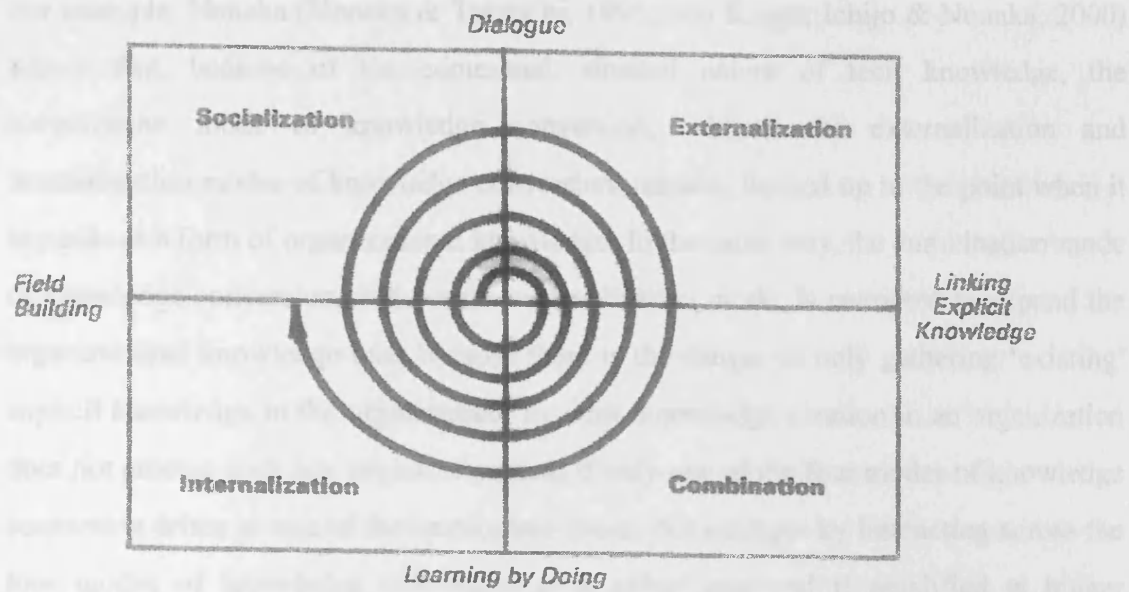


Figure2-8: Knowledge spiral (Source: Nonaka & Takeuchi, 1995)

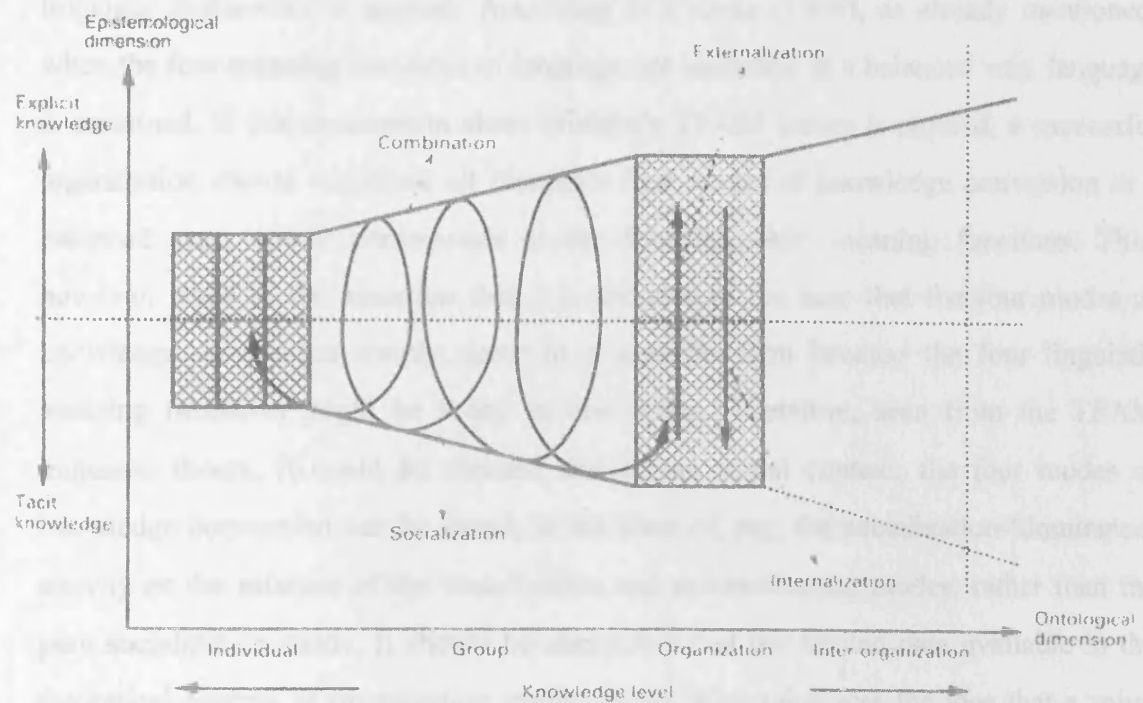


Figure2-9: Spiral of organizational knowledge creation (Source: Nonaka & Takeuchi, 1995)

For example, Nonaka (Nonaka & Takeuchi, 1995; von Krogh, Ichijo & Nonaka, 2000) argues that, because of the contextual, situated nature of tacit knowledge, the socialization mode of knowledge conversion, without the externalization and internalization modes of knowledge conversion, remains limited up to the point when it expands as a form of organizational knowledge. In the same way, the combination mode of knowledge conversion, without the externalization mode, is restricted to expand the organizational knowledge base because there is the danger of only gathering ‘existing’ explicit knowledge in the organization. In short, knowledge creation in an organization does not emerge with any degree of success if only one of the four modes of knowledge conversion arises at one of the ontological levels, but emerges by interacting across the four modes of knowledge conversion *in a spiral way* and if amplified at higher ontological levels.

#### **2.6.2 Examining the knowledge spiral in term of the TEAM linguistic framework**

Such assumptions of the knowledge spiral made by Nonaka seem valid if the TEAM linguistic framework is applied. According to Nishibe (1996), as already mentioned, when the four meaning functions of language are sustained in a balanced way, language is sustained. If this assumption about Nishibe’s TEAM theory is applied, a successful organization should constitute all Nonaka’s four modes of knowledge conversion in a balanced way, which corresponds to the four linguistic meaning functions. This, however, leads to the assertion that it is not always the case that the four modes of knowledge conversion simply occur in a separate form because the four linguistic meaning functions might be found in one action. Therefore, seen from the TEAM linguistic theory, it could be claimed that in the actual context, the four modes of knowledge conversion can be found, in the form of, say, the socialization-‘dominated’ activity or the mixture of the socialization and externalization modes, rather than the pure socialization mode. It should be also noted that the limited data available in the theoretical context of organization studies in the West reinforces the idea that a spiral perspective includes the four types of knowledge conversion. In practice however, the

focus of attention given by western researchers in organization studies is on only one or two aspects which utilize the concepts of *social capital*, *combination activity*, *absorptive capacity* and *organizational learning*.

## **2.7 Examining Nonaka's five enabling conditions for organizational knowledge creation in organization studies in the West**

Nonaka (Nonaka & Takeuchi, 1995) assumes that knowledge cannot be 'managed' or 'controlled'. Therefore, the role of the organization in the process of knowledge creation is to 'support' and 'stimulate' the knowledge-creating activities of individuals and groups by 'providing appropriate' contexts for them. As for the preconditions, Nonaka propounds *five organizational conditions* which he considers may facilitate and sustain knowledge creation in an organization; namely, (1) *Organizational intention*, (2) *Autonomy*, (3) *Fluctuation and Creative chaos*, (4) *Information redundancy*, and (5) *Requisite Variety*. In this section, those five organizational conditions are outlined and considered in relation to the existing literature on organization studies in the West.

### **2.7.1 The first condition: Organizational intention**

#### ***Definition of organizational intention***

Based on the premise that consciousness arises if a subject pays attention to an object (see Husserl, 1968) and that cognition as 'knowing' and 'understanding' occurs in the context of purposeful activity (see Neisser, 1976), Nonaka assumes that the knowledge spiral is promoted by *organizational intention*, which is defined as 'an organization's aspiration to its goal' (Nonaka & Takeuchi, 1995, p74).

#### ***Organizational will, anticipation and strategy***

This assumption is supported by Weick's insights which claim that an organization's interpretation of environmental information is based on the capability of 'self-fulfilling prophecy' grounded in an assumption that the organization has a strong will to 'self-actualization', that is, what it wants to become (see 1979). More recently, Nahapiet & Ghoshal (1998) assumes that in order for knowledge to be created in an organization,



individuals in a firm must anticipate that the activity of knowledge creation will prove worthwhile, even if there are some uncertainties. Whilst the recognition of the importance of a strong will to self-actualization (Weick) and of workers' anticipation in an uncertain environment (Nahapiet & Ghoshal) is consistent with Nonaka's assumption, it can be said that of the two, Nonaka provides a more practical and actionable condition as he argues that organizational intention typically takes the form of *a strategy* within a business setting. According to Nonaka, organizational intention in the form of strategy provides the most important justification criterion for judging the relevance of a new piece of knowledge, which enables members of an organization to assess the value of information or knowledge perceived and created. Nonaka argues that a strategy which provides members of an organization with criteria for knowledge creation is usually called *knowledge vision* or *knowledge domain*, which conceptualizes a vision about the kind of knowledge which should be developed.<sup>6</sup>

### **2.7.2 The second condition: Individual and group autonomy**

#### ***Individual and group autonomy***

When putting forward his own autonomy, Nonaka places great importance on human beings as proactive creatures who create new knowledge, rather than passive creatures that process information, as Simon assumed (see section 2.2). Therefore, Nonaka defines the second condition for promoting knowledge creation, as *autonomy* at individual, group and organizational levels. Nonaka assumes that since every individual in an organization has a different personality and intention, allowing the autonomy of individuals may lead to increasing the chance of introducing unexpected opportunities and also assumes that autonomy provides individuals with greater *self-motivation* to

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<sup>6</sup> More recently, Nonaka (von Krogh, Ichijo & Nonaka, 2000) expands the idea of knowledge vision as organizational intention and claims that knowledge vision must include not only an *advancement strategy* related to foresight about a future, but also a *survival strategy* related to the vision of one's present situation. In this sense, the organizational intention should be dualistic and synthetic. It is interesting to apply this dualistic view to the TEAM linguistic framework of social sciences (see Figure1-5). While the advancement strategy is related to *Power* of media of social language because it utilizes *imagination* to create order from chaos in the name of 'future', the survival strategy is associated to *Money* because it aims to adapt changing environments in an *effective* manner.

create new knowledge. As for group (organizational) autonomy, Nonaka regards *the self-organizing team* as a typical autonomous organization within a firm and this, he claims, is characterized by *a cross-functional project team*, involving members from a broad cross-section of a variety of organizational activities. Such a team is more likely to have greater flexibility and should facilitate the acquisition, interpretation, and the relating of information and knowledge.

### ***Arguments for organizational autonomy in the West***

The existing literature on organization studies in the West follows Nonaka's assumption of self-organization with autonomy. By building on the research on biological studies of self-organizing systems, Spender (1998) assumes that the capacity for a firm to evolve depends on its ability to self-organize in the face of bounded levels of uncertainty and unanticipated challenge. Whilst Spender's account remains at the abstract level, his assumption is in line with Nonaka. Stinchcombe (1958) also highlighted the importance of autonomy and the impact that autonomy could have on organizing within the firm. Following the early work by Stinchcombe, Lowendahl (1997), in her research on professional service firms (PSFs), a typical knowledge-creating firm, argues that organizational structures should be informal, flexible and based on project team work, emphasizing that a firms' critical resources, such as intellectual capital, are owned and controlled by the individual experts, rather than the firm itself. It is evident from the existing literature on organization studies related to knowledge in the West, that autonomy is one of the crucial conditions that facilitate knowledge-creating activity in a firm.

### **2.7.3 The third condition: Fluctuation/creative chaos**

#### ***A trigger for knowledge creation***

The third condition which Nonaka considers facilitates organizational knowledge creation is *fluctuation* and *creative chaos* and he defines *fluctuation* as 'a change that is hard to predict' (such as the market needs and growth of competing companies) (see Nonaka & Takeuchi, 1995) and regards it as different from disorder. According to

Nonaka, although fluctuation may generate chaotic situations, it also provides an organization's members with opportunities to reconsider their basic mindsets and feel a sense of crisis by generating 'breakdown' of routines, habits, or cognitive frameworks. Such fluctuations and the crisis as a result urge them to have 'dialogues' with people from outside the organization, as well as those within it and Nonaka considers that this continuous process of questioning the validity of existing premises and attitudes by individual members of the organization triggers organizational knowledge creation. Nonaka also claims that chaos can be generated intentionally when someone at a higher managerial level wants to give employees a sense of crisis and this is known as *creative chaos*.

#### ***Periodic breakdown and creative abrasion***

The above assumptions made by Nonaka are supported by a number of western researchers. For example, Winograd and Flores (1986) assume that 'periodic breakdown', which is the interruption of an individual's habitual, comfortable state of being, develops human perspective and Leonard & Sensiper (1998) takes the same line by stating that fluctuation occurs even through critical dialogue, which they term *creative abrasion*, and stress that creative abrasion is useful in creating concepts.

#### **2.7.4 The fourth condition: Informational redundancy**

##### ***Redundancy promoting the sharing of tacit knowledge***

The fourth organizational condition that Nonaka considers promotes the knowledge spiral is *redundancy*, which is the existence of information that goes beyond immediate operational requirements or of an intentional 'overlapping' of information (about business activities, management responsibilities, and the company as a whole) in an organization. Nonaka assumes that redundant information speeds up the socialization and externalization modes of knowledge conversion because it helps individuals to be loosely connected to each other beyond functional boundaries and prompts individuals to sense what others are trying to articulate. However, Nonaka admits that redundancy of information tends to increase the volume of information which needs to be processed

and may lead to information overload. Moreover, it increases the cost of knowledge creation at least in the short term, therefore, striking a balance between creating knowledge and processing information is another important issue to consider.

### ***Arguments for redundancy in the West***

Of the available literature dealing specifically with knowledge creation in the West, very little regards redundancy as an organizational condition that facilitates the process of knowledge creation. However, a researcher who does, is Spender (1998), who regards redundancy as a key concept for effective organization and makes the assumption that when there is a certain degree of redundancy at the systemic level, participants share behavioural norms because redundancy makes their practices mutually understandable.

#### **2.7.5 The fifth condition: Requisite variety**

##### ***Requisite variety as a synthesized notion between simplicity and diversity***

*Requisite variety* is the fifth condition which Nonaka considers necessary if organizational knowledge creation is to take place. This is based on the premise that an organization's internal diversity must match the variety and complexity of the environment, in order to deal with the challenges it is presented with (see Ashby, 1956). In making this assumption, Nonaka (Nonaka et al., 1996) expects that an organization can cope with numerous contingencies if it has *requisite variety* or *minimax internal diversity*. In this context, *requisite variety* refers to a minimum in terms of organizational integration and, at the same time, a maximum for effective adaptation to environmental change, in the sense that it is a synthesized notion between simplicity and diversity. According to Nonaka, the application of requisite variety enhances the combination mode of knowledge conversion by facilitating the combining of explicit knowledge (information) differently, flexibly, and quickly, and most importantly by providing equal access to information throughout the organization.

### ***Practical approaches to requisite variety in an organizational context***

In order to realize requisite variety, a practical approach is needed and for this, Nonaka assumes that the flattening of organizational structure and its replacement with a corporate-wide information system are essential because this will facilitate the flow of information in a wide variety of flexible and fast modes. Yet another approach envisaged by Nonaka is a frequent change in the organizational configuration and/or to rotate employees frequently, thereby allowing members within the organization to obtain 'interdisciplinary knowledge' enabling them to address a wide range of internal and external issues.

### ***Arguments for requisite variety in the West***

The existing literature of organization studies in the West outlines some aspects of requisite variety (Grand, 1996a; Nahapiet & Ghoshal, 1998; Spender, 1998). In connection with the *accessibility* aspect in requisite variety, Nahapiet & Ghoshal point out that accessibility is an important requirement for facilitating the creation of knowledge or intellectual capital of a firm and these authors regard Information and Communication Technologies (ICTs) are powerful tools for knowledge to be combined and exchanged. However, Spender (1998), when addressing the *variety* or *diversity* aspects in requisite variety, asserts that the most important thing to consider is the institutionalization of diversity at the systemic level, rather than diversity itself. In effect, what Spender is emphasizing is the need to manage diversity effectively.

Table 2-5 summarizes the five enabling conditions that Nonaka proposes for the facilitation of knowledge creation in an organization and examines related notions in the context of organization studies in the West. The concepts of these five conditions for organizational knowledge creation will be used in subsequent chapters and the case study research (Chapter 3, 4 & 6).

Table2-5: Organizational conditions that facilitate knowledge creation and their related notions (Source: Author)

<b>Five conditions for knowledge creation</b>	<b>Related notions and words</b>
<b>Organizational intention</b>	Strategy, Knowledge vision, Justification criterion
<b>Individual and group autonomy</b>	Unexpected opportunities, Self-motivation, Self-organizing team
<b>Fluctuation / creative chaos</b>	'Breakdown' of routines, habits, or cognitive frameworks
<b>Informational redundancy</b>	Intentional overlapping of information, loosely-connected individuals
<b>Requisite variety</b>	Internal diversity, a minimum for organizational integration

## 2.8 Introducing Nonaka's five-phase model of organizational knowledge creation

In this section, Nonaka's integrated and practical *five-phase model of organizational knowledge creation* is outlined. It incorporates a time dimension into the SECI model (the four modes of knowledge conversion). According to Nonaka (Nonaka & Takeuchi, 1995), the five-phase model of organizational knowledge creation has five phases; namely, (1) *sharing tacit knowledge*, (2) *creating concepts*, (3) *justifying concepts*, (4) *building an archetype*, and (5) *cross-leveling knowledge* (see Figure 2-10).

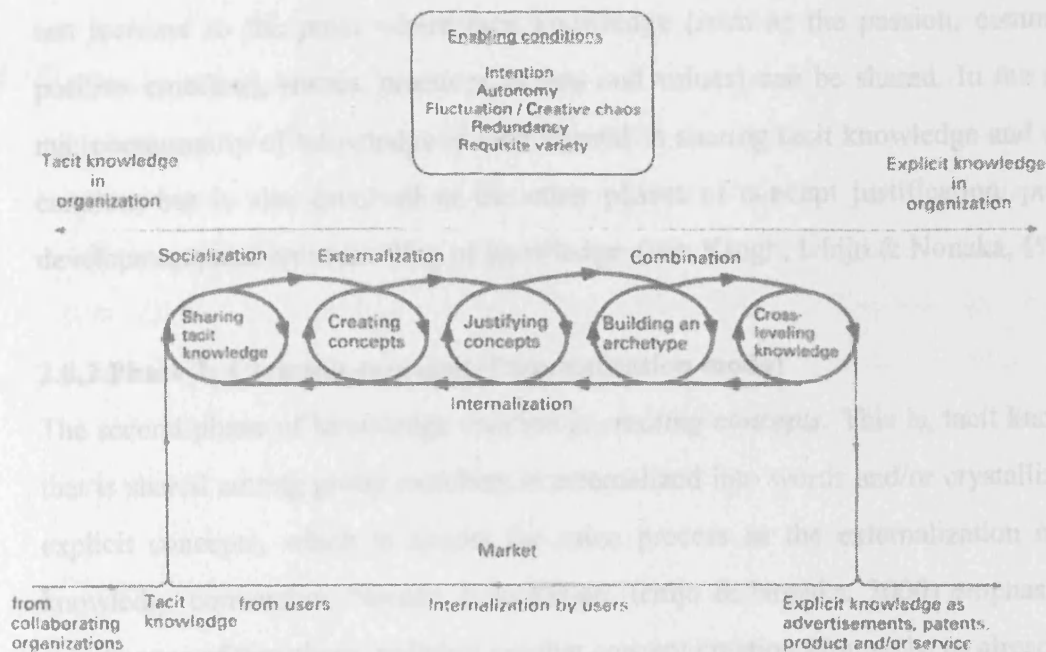


Figure 2-10: Five-phase model of the organizational knowledge creation (source: Nonaka & Takeuchi, 1995)

### 2.8.1 Phase 1: Sharing tacit knowledge (Socialization mode)

#### *Microcommunity of knowledge as a basic unit of knowledge creation*

It is Nonaka's considered assumption that the organizational knowledge creation process usually starts with *the sharing of tacit knowledge* (such as mental models and technical skills), which roughly corresponds to the socialization mode of knowledge conversion. In this, Nonaka assumes that the phase of sharing tacit knowledge (as well

as other phases) takes place in a *microcommunity of knowledge*, which is in effect a self-organizing or cross-functional project team (see, von Krogh, Ichijo & Nonaka, 1997, 2000). A microcommunity of knowledge is a team made up of five to seven people who possess a sound degree of intelligence and imaginative, but each from different backgrounds, perspectives, and motivations assembled in same physical space and advancing gradually in the process of getting to know each other at a deep level. This can increase to the point where tacit knowledge (such as the passion, commitment, positive emotions, rituals, practices, norms and values) can be shared. In the main, a microcommunity of knowledge is instrumental in sharing tacit knowledge and concept creation, but is also involved in the other phases of concept justification, prototype development, and cross-leveling of knowledge. (von Krogh, Ichijo & Nonaka, 1997).

### **2.8.2 Phase 2: Creating concepts (Externalization mode)**

The second phase of knowledge creation is *creating concepts*. This is, tacit knowledge that is shared among group members is externalized into words and/or crystallized into explicit concepts, which is almost the same process as the externalization mode of knowledge conversion. Nonaka (von Krogh, Ichijo & Nonaka, 2000) emphasizes the significance of this phase, pointing out that concept creation ultimately, as already noted, results in the advancement of a business through a new product, process, or service. Nonaka highlights the importance of *figurative* language such as metaphors and analogies in the process of creating conceptual knowledge.

#### ***Concept creation as a cooperative and communicative activity***

Nonaka (Nonaka & Takeuchi, 2000) regards this phase as a cooperative activity and claims that concepts are created cooperatively and communicatively through dialogue. The author also assumes that whilst *autonomy* as a condition for organizational knowledge creation helps team members to think creatively, *organizational intention*, such as a knowledge vision, serves to converge members' various ideas. Furthermore, Nonaka hypothesizes that *requisite variety* enables the members to look at problems from a far wider range of perspectives, and *fluctuation and chaos*, either external or



internal, facilitate members fundamentally changing old mindsets. *Redundancy of information* also helps members understand figurative language by facilitating the sharing of their mental models of individuals.

### **2.8.3 Phase 3: Justifying concepts**

As mentioned earlier, Nonaka defines knowledge as a ‘justified true belief’. Therefore, new concepts through the first and second phases need to be evaluated to *justify* them and decide if they deserve further consideration at some point in the procedure. Nonaka (von Krogh, Ichijo & Nonaka, 2000) assumes that concept justification can involve the community members themselves; department heads; business heads; top management, external stakeholders including suppliers, customers, and legal or government representatives; even performing artists and writers. When dealing with the conditions for organizational knowledge creation, Nonaka (Nonaka & Takeuchi, 1995) assumes that *redundancy of information* facilitates the justification process by enhancing any understanding about the company’s intention.

#### ***Knowledge vision as a criterion for justification of concepts***

Whilst business organizations normally set quantitative criteria as justification, for instance, cost, profit margins and the quantitative contribution to the firm’s growth, Nonaka (Nonaka & Takeuchi, 1995; von Krogh, Ichijo & Nonaka, 2000) emphasizes *qualitative* aspects including premises such as adventure, romanticism, and aesthetics. The author also highlights the importance of knowledge vision (including a strategy and mid-range concepts) as a criterion for justification in terms of organizational knowledge creation and regards knowledge vision as an indication which provides its members with a general direction regarding the kind of knowledge they should seek and create.

### **2.8.4 Phase 4: Building an archetype (Combination mode)**

The fourth phase is *building an archetype*, into which the justified concept is materialized in tangible form. For example, with new products, archetypes take the form of prototypes and, with soft innovations such as a new business operation procedure,

they usually become working models. This can be achieved by combining newly created explicit knowledge with existing explicit knowledge, including existing concepts, products, components, and procedures. In this sense, the phase in knowledge creation is similar to the combination mode of knowledge conversion.

#### ***Building an archetype as a complex process***

Nonaka (von Krogh, Ichijo & Nonaka, 2000) assumes that in order to build a prototype of the real product or a model of the actual system, the people involved in the phase are those who perform a wide variety of functions like marketing, manufacturing, maintenance and strategic planning, as well as the original microcommunity of knowledge. However, owing to the complex and dynamic nature of the phase, Nonaka emphasizes attention to detail in order to manage this complex process.

#### ***Building an archetype and organizational conditions***

As for organizational conditions, Nonaka (Nonaka & Takeuchi, 1995) highlights the significance of *requisite variety* and *redundancy of information* for managing differing expertise and he also considers that *organizational intention* contributes not only to the convergence of substantial know-how and technologies within the organization, but also to facilitating interpersonal and interdepartmental cooperation.

### **2.8.5 Phase 5: Cross-levelling knowledge (Internalization mode)**

#### ***Organizational knowledge creation as a never-ending process***

Nonaka assumes that organizational knowledge creation does not end once an archetype has been built, but should continue unceasingly. In other words, new knowledge which has been externalized, justified, and modelled into an archetype can or should move vertically up and down to different ontological levels and horizontally across boundaries (or divisions) of the organization. As a result of this, new cycles of knowledge creation re-start. This is called the *cross-levelling of knowledge*, which is regarded as the fifth phase of the five-phase model.

### ***Cross-levelling knowledge***

In relation to the five conditions for knowledge creation, in this phase, Nonaka assumes that in order for this phase to be effectively applied to knowledge at different levels and boundaries, internal *fluctuation* (for example, in the form of frequent rotation of employees) is needed. *Redundancy of information* and *requisite variety* serve in the same way as fluctuation does in the phase. Nonaka's five-phase model of organizational knowledge creation will be used in the subsequent chapters as an analytical framework (Chapter 4, 5 & 6).

## **2.9 Generic conclusions**

### ***Relationship between Nonaka's theory (SECI model) and the TEAM linguistic framework***

In this chapter, Nonaka's theory of organizational knowledge creation itself has been introduced and considered and examined using the TEAM linguistic framework as criteria. One of the major findings in the preceding analysis is that the four linguistic meaning functions have been found in Nonaka's SECI model. That is, the linguistic functions of (1) *transmitting*, (2) *expressing*, (3) *accumulating* and (4) *measuring* meaning correspond to the four knowledge conversion modes of (1) *combination*, (2) *externalization*, (3) *socialization* and (4) *internalization* in Nonaka's SECI model (see Figure 2-11).

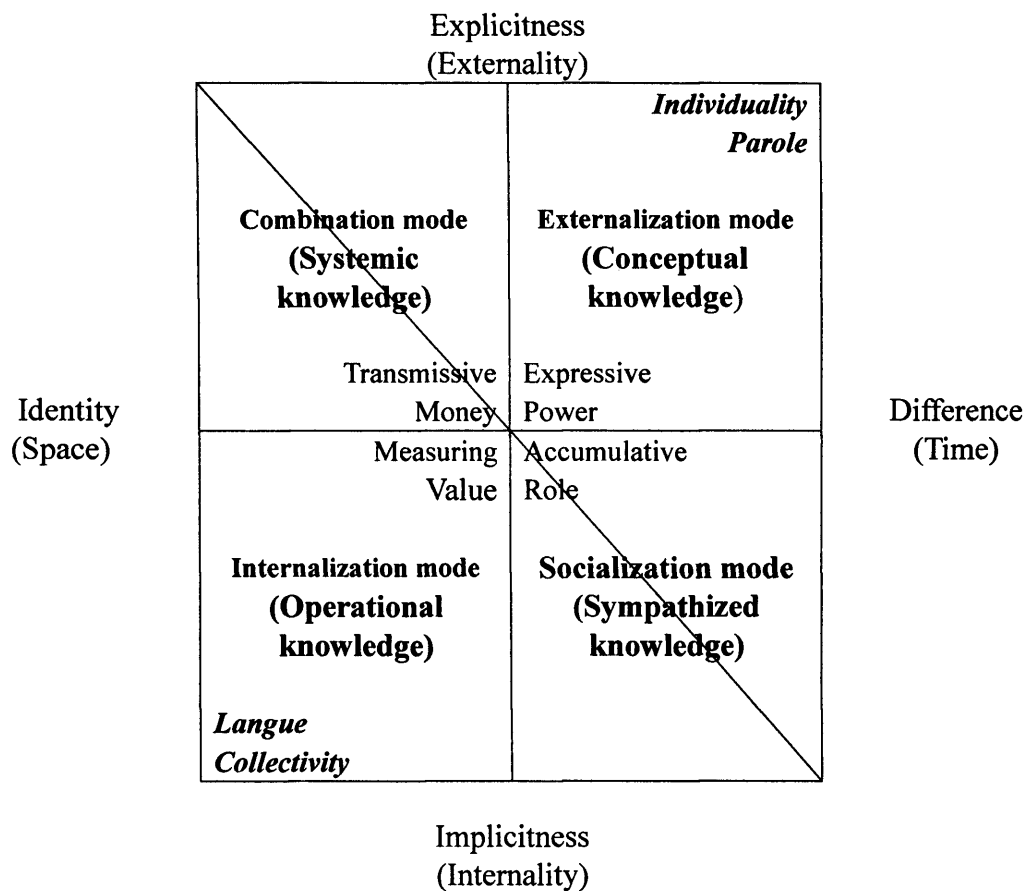


Figure2-11: Relationship between Nonaka's SECI model and the TEAM linguistic structure (Source: Author)

### ***Significant implications of the finding***

There are some significant implications of this finding. Firstly, although scientific method has usually no theoretical rationale for premise-formulation, the finding suggests that the theoretical *premises* of Nonaka's theory in general and his SECI model in particular, have been given a theoretical rationale by the TEAM linguistic theory. In other words, Nonaka's theory is based on the firm and comprehensive ground of the social sciences, which may enable one to transcend the problems that are attributed to the different premises, if the TEAM linguistic approach provides the common theoretical base of the social sciences. Secondly, the linguistic rationale of the premises of Nonaka's theory suggests that Nonaka's SECI model itself can be utilized as *criteria* by which knowledge activities in an organization can be examined and give a reasonable framework for finding relationships between theories which posit different premises in the organizational context. Thirdly, because of the comprehensiveness of the

premises, which look at multifaceted dimensions of knowledge activity in an organization involving all four linguistic meaning functions and their related social languages (such as economics, political science, sociology and cultural studies), Nonaka's theory may reduce the gap between the theory and practice in its theoretical hypothesis. Fourthly, it can be deduced that Nonaka's theory may be trans-national and highly applicable to the theory of knowledge and knowledge creation in any organizational context (including business management in the West and urban regeneration in the UK) in its hypotheses because of its perfect correspondence to the TEAM linguistic theory. This will be closely examined through the following chapters.

***Relationships between Nonaka's SECI model and arguments related to Nonaka's theory in organization studies in the West***

The preceding sections have also examined the literature associated with knowledge in the theoretical context of organization studies in the West in relation to Nonaka's theory, using the TEAM framework as criteria. Figure 2-12 provides a summary finding of the research.

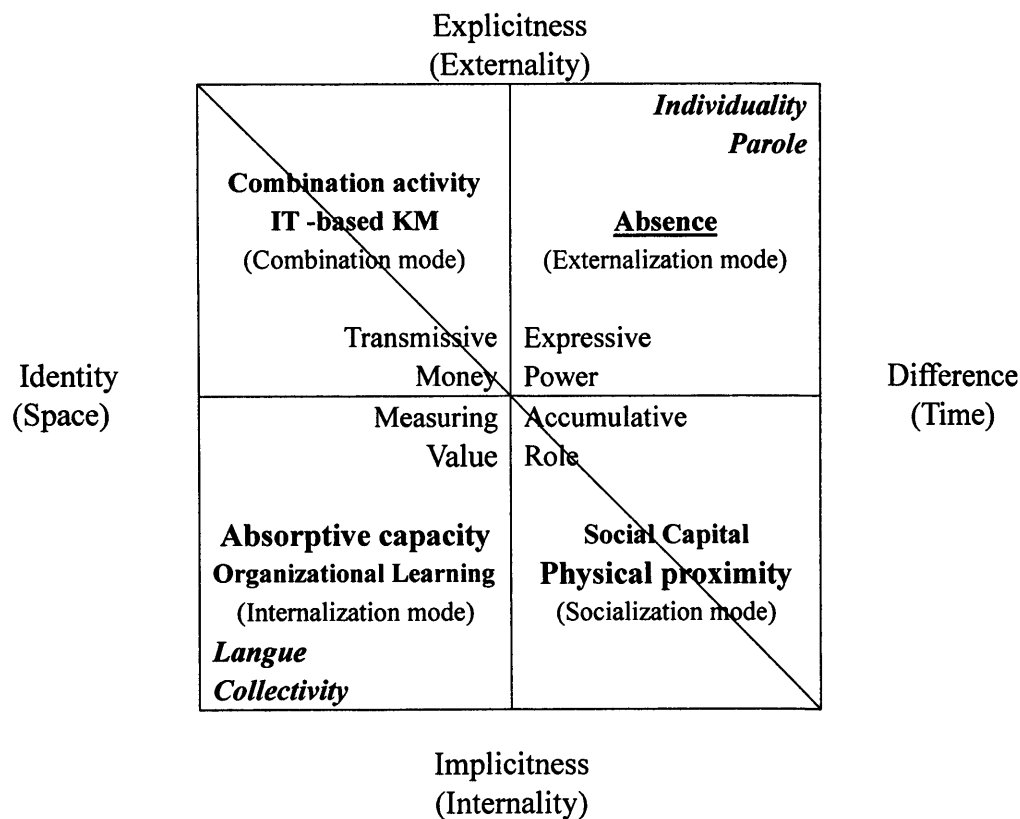


Figure2-12: Relationship between Nonaka's SECI model and arguments related to Nonaka's theory in the West (Source: Author)

Although the socialization mode of knowledge conversion advocated by Nonaka is characterized in the context of Japan, the emergent interest of the concepts of *social capital* and *physical proximity* in the theoretical context of organization studies in the West has been identified, and this is consistent with the socialization mode presented by Nonaka. The preceding analysis has also identified a gap in the existing literature of organization studies related to knowledge in the West, and this is that there is no consideration of the externalization mode. This may reflect the influence of Western (Cartesian-like) rationalist epistemology (which was covered in section 2.2) because the externalization mode is highly related to non-logical dimensions such as imagination, expression and metaphor as opposed to a rationalist perspective. Identification has been made of the recent literature which focuses on the combination mode in the West. The internalization mode of knowledge conversion has become popular in the West, especially in relation to the argument on implementation of IT in an organizational context. No literature, however, deals with all the four modes of knowledge conversion in the West. It can be concluded that Nonaka's theory may provide a comprehensive and integrative conceptual framework for organizational knowledge creation, even in the theoretical context of organization studies in the West. Although theorists such as Blackler (1995) and Spender (1996, 1998) criticize Nonaka's ontological premise, the TEAM linguistic framework may help provide an appropriate foundation to communicate with each other, if they try to put other dimensions of social language and its derivatives into their own theories.

### ***Nonaka's five conditions for organizational knowledge creation and his five-phase model***

Nonaka's five conditions for organizational knowledge creation have also been outlined and considered in relation to organization studies in the West and his five-phase model has been outlined. Figure 2-13 shows the integrated framework of the TEAM linguistic structure and Nonaka's five-phase model. These will be widely utilized in the following chapters.

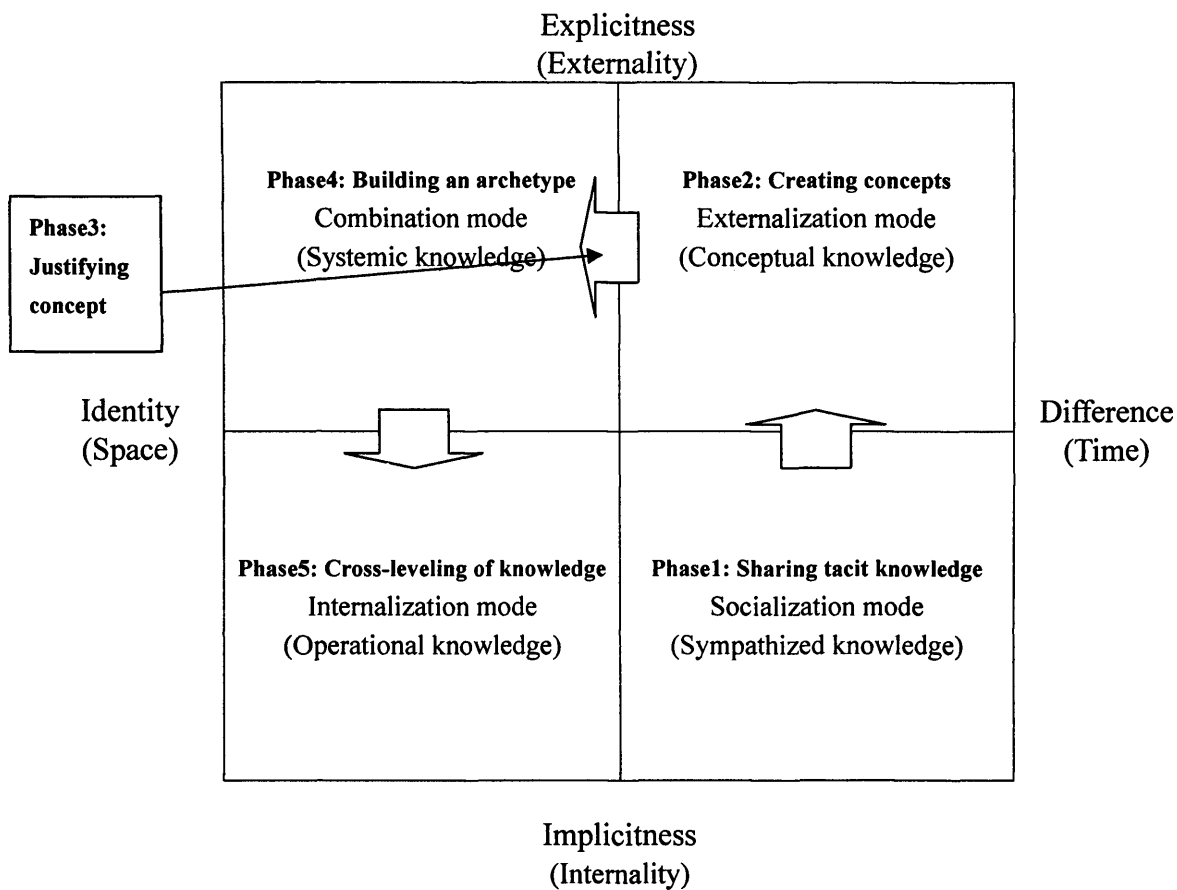


Figure2-13: The integrated framework of the TEAM linguistic structure and Nonaka's five-phase model (Source: Author)

### ***Limitation of the approach adopted in this chapter***

The preceding analysis, however, has a limitation in its approach. In this section, the main consideration is placed on Nonaka's theory itself and the existing literature of organization studies in the West has been collected in relation to the various concepts of Nonaka's theory at the researcher's disposal. In adopting this approach, there is a danger that literature in the West which meets the whole criteria of the TEAM linguistic framework and one which addresses the externalization mode of knowledge conversion in Nonaka's terms, has been overlooked. In order to overcome this limitation, the next chapter places greater emphasis on the literature of organization studies in the West, but focus on *knowledge management (KM)* in the UK as a central consideration, rather than Nonaka's theory itself. However, the main objective will be the examination of the trans-nationality and applicability of Nonaka's theory to that context.

## **CHAPTER 3: AN EXAMINATION OF THE TRANS-NATIONALITY AND APPLICABILITY OF NONAKA'S THEORY IN THE KNOWLEDGE MANAGEMENT CONTEXT IN THE UK**

### **3.1 Introduction**

In the previous section, in addition to the examination of the relationships of various concepts between Nonaka's theory and organization studies in the West, a hypothetical rationale of Nonaka's theory was given by applying the TEAM linguistic framework, which in turn provided the validity of the hypotheses proposed in this research. It also created an integrated framework from the TEAM structure and Nonaka's SECI model (see Figure 2-11). This chapter aims to examine the trans-nationality and applicability of Nonaka's theory to the context of *knowledge management (KM)* in the UK in particular, by using the integrated framework as criteria. In other words, Hypothesis 1 proposed in Chapter 1 is examined. In order to accomplish this aim, an extensive range of literature related to KM in West and the UK has been collected, presented and critiqued and three approaches set up. Firstly, the discourse(s) of (the conceptualization of) KM in the West is identified and examined in terms of the integrated framework (in section 3.2). This is done by utilizing an existing contents-analysis of journal article abstracts presented by European scholars. Secondly, in order to overcome the limitations of the 'macro-oriented view' of contents-analysis, the research will also focus on knowledge per se, that is, several types of knowledge (including tacit and explicit dimensions) in the KM context, identified and classified by (Northern) European researchers, and will examine them again in terms of the integrated framework mentioned above (in section 3.3). This will provide an opportunity to link Nonaka's SECI model to the different types of knowledge presented in existing literature related to KM in the West. Thirdly, the trans-nationality and applicability of Nonaka's theory will be examined in 'actual' (empirical) management practice in the UK using existing empirical research conducted by UK researchers (in section 3.4). The examination in this chapter will also provide the foundations of research into the application of Nonaka's theory to the field of urban regeneration in the UK and will closely follow the outline in Figure 1-6 of Chapter 1.



## **3.2 Examining the knowledge management research trend(s) and its relationships to Nonaka's theory**

### **3.2.1 Definitions of knowledge management**

#### ***Some definitions of KM in the West***

While throughout the previous chapter the definition of 'knowledge' in the theoretical context of organization studies was examined in relation to Nonaka's theory, the term 'knowledge management (KM)' have been used freely up to this point. The reasons for this are twofold, as it is partly due to the fact that Nonaka never used the term 'knowledge management'<sup>1</sup> and partly because emerging interest in KM tends to be, as will later be argued, a western phenomenon, at least, for the moment. In spite of (or perhaps due to) the fact that KM has achieved considerable attention from academics and practitioners in the West over the past few years, no unified definition of KM has as yet emerged. It seems that because of the complex and multifaceted nature of knowledge itself, the existing literature on KM defines knowledge according to the various authors' concerns about the topic. The following are some examples of the definitions of KM:

- Davenport & Prusak (1998): *Knowledge management is the process of increasing the efficiency of knowledge markets by generating, codifying, coordinating, and transferring knowledge*
- Alavi & Leidner (1999): *Knowledge management refers to a systemic and organizationally specified process for acquiring, organizing and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work*
- Swan et al. (1999): *KM is defined very broadly, encompassing any processes and practices concerned with the creation, acquisition, capture, sharing and use of knowledge, skills and expertise whether these are explicitly labeled as 'KM' or not.*

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<sup>1</sup> Nonaka has never used the terms 'knowledge management' because he thinks knowledge cannot be 'managed'. Rather a manager can only 'support' knowledge creation by providing a knowledge enabling context. See e.g. Von Krogh, Ichijo, & Nonaka (2000) and Nonaka & Nishiguchi (eds.) (2001).

### ***Consistency in the definition of KM***

Broadly speaking, from the above definitions, KM is largely seen as an organizational process and practice both at individual and group levels and regards knowledge as a crucial resource for sustaining and achieving organizational competitiveness. It also includes a variety of activities such as knowledge creation, codification, sharing, coordination, and transfer, all of which are associated with both tacit and explicit knowledge. All the definitions provided are roughly consistent with Nonaka's theory, which values organizational activities concerned with knowledge conversion between tacit and explicit knowledge through social interaction as the key for enhancing and sustaining organizational advantage.

### **3.2.2 Proliferation of knowledge management in the UK**

#### ***Intensification of KM in the UK***

KM has received widespread attention in the West and the UK in particular. For example, a keyword search in June 2003 on the web site of *Amazon.co.uk* generated 1,219 hits for 'knowledge management' (c.f. *Amazon.com* (USA) yielded 834 at the same words).<sup>2</sup> It is interesting to make a comparison between the above and *Amazon.co.jp* which found only 62 hits for the words 'knowledge management' in Japanese.<sup>3</sup> This suggests that the conceptualization (not practice) of KM is to date a phenomenon found mainly in the West, and in the UK in particular.<sup>4</sup> In the UK the early 1990s heralded interest in KM and its continued popularity is evident by the creation of a journal devoted to KM (e.g. *Journal of knowledge management*) in addition to a number of other works specially concerned with the topic (see *Journal of Information Technology*, 2001, vo.16, for example). Moreover, the appearance of several major review articles on KM by researchers in the UK is testimony to KM's growing stature in the research community (see Blackler, 1995 (UK); Blackler et al.,

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<sup>2</sup> c.f. the keyword search in May 2002 on the web site of *Amazon.co.uk* gave rise to 557 hits for 'knowledge management' (c.f. *Amazon.com* yields 617 at the same words)

<sup>3</sup> This includes the words 'narreji manejojimento' (knowledge management in Japanese) and 'chishiki keiei' (translated words of knowledge management into Japanese)

<sup>4</sup> In addition, between 1989 and 2000, the EBSCO Business Source Premier database comprised 1,397 article abstracts that include the key words 'knowledge management', within excess of 95% concentrated in the 4-years period from 1997 to 2000 (see Raub & Rüling, 2001).

1998 (UK); Scarbrough et al., 1999 (UK); Swan et al., 2001 (UK)). In addition to this, from 2000 onwards the *European Conference on Organizational knowledge, Learning, and Capability (OKLC)* has taken place every year in the UK, focusing on KM with an explicitly European focus as an attempt to integrate insights from a variety of disciplines and fields, such as information systems management, strategic management, organization theory, marketing, entrepreneurship, accounting and strands of sociology, psychology, economics, and philosophy.<sup>5</sup> Taking these facts together, it would be natural to suppose that KM promises to be a dominant perspective with influence on both researchers and practices in various fields throughout the UK.

### **3.2.3 Examining knowledge management discourse(s) in the West in terms of Nonaka's SECI model**

#### ***Contents-analysis of journal article abstracts***

The sustained interest in KM and the rapid proliferation of KM articles in the UK raise an important question associated with the research presented here. That is, whether or not the KM articles in the UK have any affinity in their conceptualization to Nonaka's theory, or what the relationships in the perspective between KM in the UK, and Nonaka's theory are. To address this, it seems appropriate to base the examination on a contents-analysis of journal article abstracts related to KM as a starting point, in order to grasp the KM discourse(s) in a Western context and compare it with the theoretical framework of Nonaka's SECI model. However, owing to the limited research in this field as a whole, greater emphasis is given to the works produced by researchers in Europe; namely, Raub & Rüling (2001).

#### ***Methodological limitations***

Raub & Rüling (2001) have comprehensively examined KM trends in the West, using a number of journal articles linked to 'knowledge management'. The main original source was the ABI/Inform database, an on-line journal, between 1975 and 1998, in which 434

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<sup>5</sup> The first OKLC was held in the University of Warwick and the second in University of Leicester. The third conference was organized outside the UK for the first time and took a more explicitly European focus. See the Web-site <http://www.alba.edu.gr/OKLC2002>.

abstracts (including article titles and article keywords) which hit the key word 'knowledge management' were utilized as the research materials. Based on a preliminary analysis of approximately one hundred randomly chosen articles, the authors inductively categorized a certain number of variables that appeared to be of theoretical interest and analyzed the articles. It should be noted here that, as the authors acknowledge, there are certain methodological limitations of database research of journal article abstracts. Firstly, the results of these analyses are determined by the quality of the databases themselves and this, for example, does not take into account any books that may have significance in adding to the KM discourse(s). Secondly, the results of these analyses depend on the categorization. For example, they excluded articles related to KM that do not contain the term 'knowledge management' in their abstracts. Thirdly, although it is assumed that the databases used here provide a representative sample which is relevant to the KM field in the West, the articles in their databases may include those written by non-Western researchers. Although the kinds of limitations outlined above cannot ensure empirical rigour, the research required for the paper will at least be able to track a KM literature discourse(s) in the West. In addition, gaps caused by these limitations have, as far as possible, been supplemented by the literature review on types of knowledge in section 3.3 and the case study analysis in section 3.4.

### ***Findings of Raub & Rüling's research***

One of the main findings of Raub & Rüling's data base analysis is that the authors identified that there are at least *two separate KM discourses* in accordance with the variable journal affiliation related to KM; namely, an *IS/IT-driven KM* and a *KM which focuses on issues of general managerial interest* (such as a management, human resources, marketing or finance) (2001). The latter was labeled *MGT-KM* (general-management-oriented). Although this term is somewhat vague, it seems to only mean that which isn't 'IT/IS'. Table 3-1 shows that the two discourses, or rather research communities, exist separately. Separate journals examine each theme and issue related with KM with little overlapping or shared interest and with little collaboration

beyond research communities.<sup>6</sup>

Table3-1: Associations with ‘journal function’ (Source: Raub & Rüling, 2001)

Article content	Journal affiliation: IT/IS	Journal affiliation: MGT
IT systems	0.160**	-0.123*
IT tools	0.228**	-0.178**
Knowledge management tools	0.116*	Not significant
Learning	-0.203**	0.126*
Intellectual capital	-0.166**	0.153**
Generic knowledge management processes	-0.105*	0.134**
Strategic implications	-0.145**	0.113*

Spearman's  $\rho$ , n=398.

\*Correlation significant at the 0.5 level (two-tailed)

\*\*Correlation significant at the 0.1 level (two-tailed).

### *A temporal perspective of the KM discourses and Nonaka's theory*

Raub & Rüling (2001) have also analyzed the journal database from *a temporal perspective* (see Table 3-2) and discovered that whilst before 1994 articles related to KM were dominated by IS/IT approaches, from 1994 to 1996 MGT articles dominated the KM debate. This distinctive shift is consistent with the views expressed by Swan et al. (2001) who view the shift as ‘a backlash of criticism against the ‘KM’ emphasis on technology’.

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<sup>6</sup> That is, while IS/IT-oriented journals show a positive correlation with the topics of IT systems, IT tools and knowledge management tools, they are negatively correlated with the remaining content variables. Conversely, while the MGT category of journals show positive correlations with mention of learning, intellectual capital, processes and strategic implication, they are negatively correlated with IT systems and IT tools.

Table3-2: Share of abstracts in terms of condensed content categories (IS/IT vs. MGT)  
(Source, Raub & Rüling, 2001)

Article year	Condensed content category				
	Others	IS/IT only	MGT only	IS/IT and MGT	Total
1975 (Count/percentage)	4	-	-	-	4
	100.0	-	-	-	100.0
1983	-	1	1	-	2
	-	50.0	50.0	-	100.0
1984	-	1	-	-	1
	-	100.0	-	-	100.0
1985	-	2	-	-	2
	-	100.0	-	-	100.0
1986	1	1	-	-	2
	50.0	50.0	-	-	100.0
1987	1	3	-	4	8
	12.5	37.5	-	50.0	100.0
1988	1	2	-	1	4
	25.0	50.0	-	25.0	100.0
1989	1	1	1	-	3
	33.3	33.3	33.3	-	100.0
1991	-	2	-	-	2
	-	100.0	-	-	100.0
1992	-	3	-	-	3
	-	100.0	-	-	100.0
1993	-	2	-	-	2
	-	100.0	-	-	100.0
1994		1	4	-	5
		20.0	80.0	-	100.0
1995		3	7	1	11
		27.3	63.6	9.1	100.0
1996	2	8	16	11	37
	5.4	21.6	43.2	29.7	100.0
1997	3	27	26	22	78
	3.8	34.6	33.3	28.2	100.0
1998	18	91	96	65	270
	6.7	33.7	35.6	24.1	100.0
Total	31	148	151	104	434
	7.1	34.1	34.8	24.0	100.0

### *Applying the analysis to the integrated framework*

It is interesting to apply the findings of Raub & Rüling to the integrated framework of the TEAM linguistic structure and Nonaka's SECI model (see Figure 3-1). Figure 3-1

shows that *the IT/IS community* fall into the quadrant of the combination mode of knowledge conversion in Nonaka's terms (or the language function of transmitting meaning in the TEAM linguistic framework) because it views knowledge as explicit, readily codified as well as stored, say, in a computer, and easily transmitted to others. *The MGT community* may be divided into the quadrants of socialization and internalization modes (or the language functions of accumulating and measuring meaning) (e.g. learning, intellectual capital and strategic implication → the internalization mode, generic knowledge management processes → the socialization mode) because it has to deal with the human, context-specific and therefore tacit dimension of knowledge.

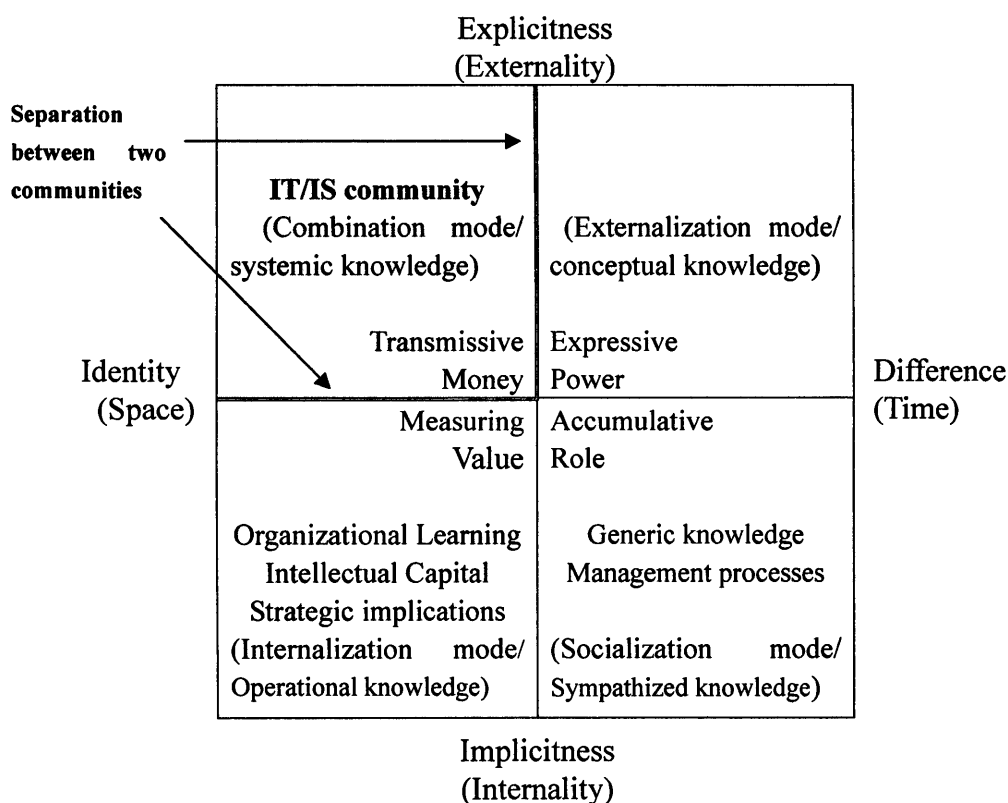


Figure3-1: Relationship between two separated KM communities and Nonaka's SECI model (Source: Author)

This suggests that the majority of the different communities fail to adequately grasp the totality of these diverse knowledge activities in a coherent and comprehensive manner and highlight only a few of the aspects of Nonaka's SECI model.

### ***The emergence of the integrative perspective***

The other interesting result from Raub & Rüling's (2001) analysis is the rise of an *integrative perspective* between IT/IS implications and managerial issues in KM articles which have appeared from 1995 onwards (see Table 3-2). The emergence of the integrative perspective between those offering different viewpoints implies that both research communities in KM are communicating in order to overcome their theoretical limitations and to find the better or more practical solutions to organization needs. However, a close look at this new approach shows it remains a narrow perspective of knowledge, limiting its focus on the successful implementation of IT. For example, Taylor et al. (2001), whose research is typical of the integrative approach to KM, produced case study research of the 25 organizations in the northwest of England, and identified a need for employees *internalizing* the skills and knowledge required for computer network support activities in order for IT tools to work effectively. The finding from this research is amply supported by Robey et al. (2000) who claim that the successful implementation of technologies will depend on organizational learning capacity.

### ***The limitation of the integrative perspective in KM***

Again, applying the integrated framework of the TEAM linguistic framework and Nonaka's SECI model to the arguments of the *integrative perspective* of KM, the result is most interesting (Figure 3-2). Figure 3-2 suggests that the *integrative perspective* of KM mainly expands focus or interest from the combination mode to the internalization mode of knowledge conversion in order to derive benefit from a KM project. In other words, there is still a failure to adequately grasp the whole level of the knowledge activity in an organization, ignoring aspects of the externalization mode and placing less emphasis on the socialization mode as expressed in Nonaka's terms.



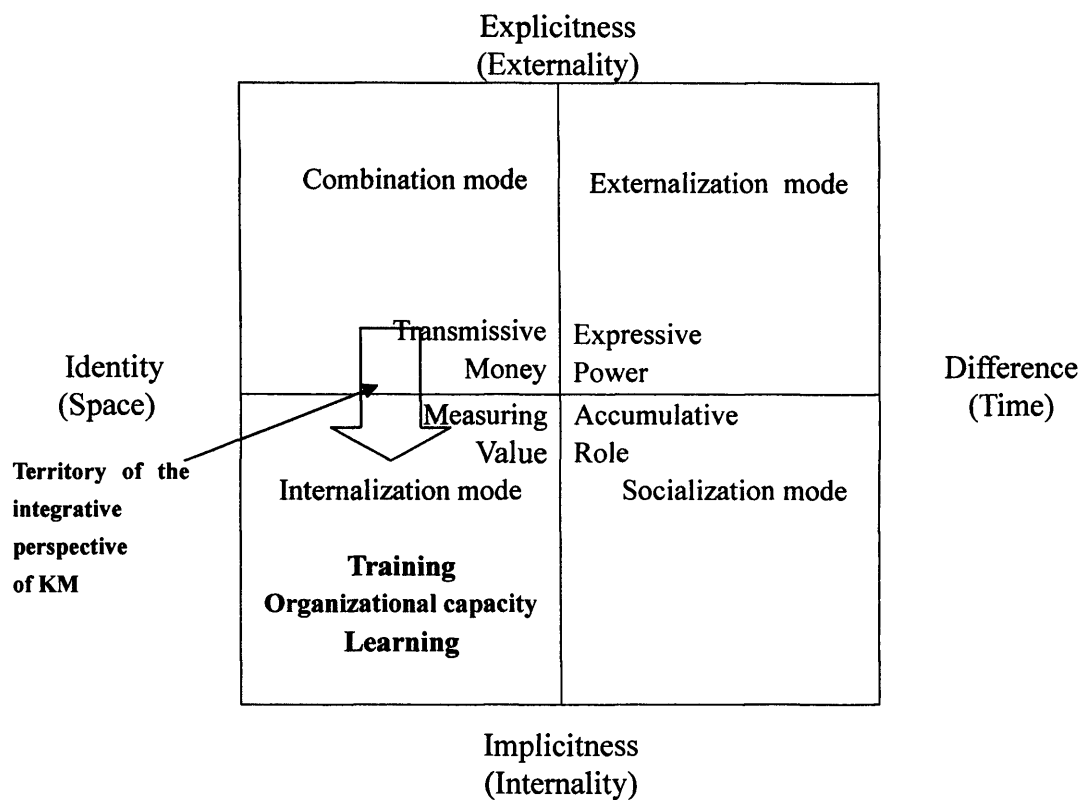


Figure3-2: Relationship between the IT driven integrative approach to KM and Nonaka's SECI model (Source: Author)

### Conclusions

The preceding section has grasped the KM discourses in the West which focus on Information Technologies and identified their limitations in terms of the integrated framework of the TEAM linguistic framework and Nonaka's SECI model. This analysis suggests that the (three) approaches to KM identified by Raub & Rling (2001) in the West require a much wider view of knowledge, one which incorporates the four modes of knowledge conversion into their framework in a balanced way. In other words, it supported the possibility that Nonaka's theory offers a more comprehensive framework which covers all KM discourses in the West in a comprehensive manner.

The preceding analysis in this section, however, has a limitation in its approach, which is that it looked at the KM trend in the West from a macro-oriented perspective, using the contents-analysis of journal article abstracts. In adopting this approach, there is a danger that literature related to KM in the West which focuses closely on the multifaceted and multilayered nature of knowledge in the organizational context has

been overlooked. In order to overcome this limitation and examine the trans-nationality and applicability of Nonaka's theory, the next section places greater emphasis on literature which looks at knowledge per se in the KM context.

### **3.3 Examining 'knowledge' in knowledge management literature in the West and its relationships to Nonaka's SECI model**

#### **3.3.1 Introduction**

In an attempt to examine the trans-nationality and applicability of Nonaka's theory to the KM context in the West and the UK in particular, this section looks closely at a body of existing literature that has knowledge per se as a central concern, rather than the application of IT in organizations in the West. Such literature has identified the multifaceted and multilayered nature of knowledge, including not only the tacit/explicit (epistemological) dimension, but also the individual/collective (ontological) dimension. The examination will be done by using the typologies of knowledge in the organization developed by UK researchers such as Blackler (1995) and Lam (2000). This will be related to the types of knowledge treated in Nonaka's SECI model.

#### **3.3.2 Examining typologies of knowledge in knowledge management literature**

##### ***Blackler's typology and organizations***

By reviewing substantial literature of organization theory and adapted from a categorization of knowledge types presented by Collins (1993), Blackler (Blackler, 1995; Blackler, Crump & McDonald, 1998) identifies five types of knowledge that play an important role in organizations. These are, *embodied*, *encultured*, *embedded*, *encoded* and *embrained knowledge*. By using four of the types identified above, Blackler (1995) further differentiated four models of organizations according to their focus on problems (familiar issues (a routine kind) vs. unfamiliar issues) and ontology (individual vs. collective effort)(see Figure 3-3).

<b>Emphasis on collective behaviour</b>  <b>Emphasis on contributions of key individuals</b>	—emphasis on <b>embedded knowledge</b>  Knowledge-routinised organizations	—emphasis on <b>encultured knowledge</b>  Communication-intensive organizations
	—emphasis on <b>embodied knowledge</b>  Expert-dependent organizations	—emphasis on <b>embrained knowledge</b>  Symbolic analyst-dependent organizations
	<b>Focus on familiar problems</b>	<b>Focus on unfamiliar Problems</b>

Figure3-3: Different types of knowledge and organizations (adapted from Blackler, 1995)

### ***Lam's typology and organizations***

In building on Blackler' four knowledge types, Lam (2000) also developed a two-by-two matrix, premised on a clear classification of the epistemological dimension (explicit vs. tacit knowledge) and the ontological dimension (individual vs. collective). Lam (2000) also presents four types of organization models that are classified by dominant types of knowledge, and these are: (1) *Professional bureaucracy* (embrained knowledge dominant), (2) *Machine Bureaucracy* (encoded knowledge dominant), (3) *Operating Adhocracy* (embodied knowledge dominant), (4) '*J-form*' organization (embedded knowledge dominant) (see Figure 3-4).

<b>Explicit knowledge</b>	<b>Professional bureaucracy</b>  <b>Embrained knowledge</b> Narrow learning inhibits innovation	<b>Machine bureaucracy</b>  <b>Encoded knowledge</b> Superficial learning, limited innovation
	<b>Operating Adhocracy</b>  <b>Embodied knowledge</b> Dynamic Learning, radical innovation	<b>J-form organization</b>  <b>Embedded knowledge</b> Cumulative learning, incremental innovation
<b>Tacit knowledge</b>		
	<b>Individual</b>	<b>Collective</b>

Figure3-4: Different types of knowledge and organizations (Adapted from Lam, 2000)

Cooley et al, (2001) summarized Lam's four 'ideal' organizations in relation to their dominant types of knowledge as follows:

- *Professional Bureaucracy* relies on the skills and knowledge of its (professional) employees who predominantly exploit *embrained knowledge*
- *Operating Adhocracy*, in which there is little formalization of behaviour, a tendency to form project teams and which predominantly exploits *embodied knowledge*
- *Machine Bureaucracy* in which most work is simple and repetitive, predominantly exploits *encoded knowledge*
- *J-firm*, predominantly exploiting *embedded knowledge*, derives its capability from knowledge that is *embedded* in its operating routines and shared culture.

### **3.3.3 Examining the five different knowledge types in relation to Nonaka's theory**

Whilst there are certain differences in focus, both Blackler (1995) and Lam (2000) pay attention to similar concerns, namely, the relationship between tacit and explicit and individual and collective knowledge. The following closely examines the five types of knowledge propounded by Blackler and Lam and their relationships to Nonaka's theory.

#### ***Embodied knowledge and Nonaka's theory***

*Embodied knowledge* is characterized by individual/tacit knowledge (Lam, 2000) and is action-oriented (Blackler, 1995; Lam, 2000). For example, Alvesson & Kärreman (2001) claim that embodied knowledge can be re-labeled as practical skill, while Blackler (1995) points out that the knowledge of the expert craftsman provides a proper example of embodied knowledge, assuming that embodied knowledge is rooted in specific rather than universal contexts and acquired through observation, imitation, and practice, rather than language or written documents. Lam (2000) asserts that the generation and application of embodied knowledge does not need to be fitted into, or processed through, a conscious decision-making schema. In this sense, it is apparent that embodied knowledge is equated with *the technical (individual) dimension of sympathized (or tacit) knowledge* in Nonaka's terms, which is produced through the socialization mode of knowledge conversion (tacit to tacit knowledge conversion) (see Figure 3-5).

#### ***Limitations of an embodied knowledge-oriented organization***

Lam (2000) recognises the organization model of *Operating Adhocracy*, which is a project, team-based organization that has little formalization of behaviour (see Figure Cooley et al, 2001), is an organization that typically relies heavily on embodied knowledge (see Figure 3-4) and assumes that such an organization is capable of divergent thinking, innovation and creative problem solving. Although the indication of the importance of a project team as an agent of knowledge creation is in line with Nonaka's notion of a 'micro-community of knowledge' (or a cross-functional team), according to Nonaka, this type of knowledge (sympathized/tacit) cannot by itself deal with novel problems in an organization, even though this knowledge plays an important

role in the processes of organizational knowledge creation. In order to create and amplify new knowledge, Nonaka assumes that sympathized knowledge (therefore embodied knowledge) should be converted to explicit knowledge through the externalization mode of knowledge conversion and combined with existing explicit (*embrained* or *encoded*) knowledge. Given this, it can be concluded that embodied knowledge is only part of knowledge as represented in Nonaka's theory.

### ***Encultured knowledge***

*Encultured knowledge* refers to the process of achieving shared understandings (Blackler, 1995), beliefs and norms (Alvesson & Kärrenman, 2001), based on an assumption that this type of knowledge is produced and shared through social and collective processes, rather than computer processing or individual cognition. Blackler (1995) also assumes that 'community-intensive organization' is dependent on this knowledge, emphasizing the importance of the roles of language in such an organization (see Figure 3-3). Alvesson & Kärrenman (2001) and Starbuck (1992) stress that knowledge in an organization must be fine-tuned depending on social practice and cultures, rather than by horizontal behavioural control. Robertson & Swan (2003), in their literature review of KIFs, also point out that functionalists, such as Schein (1983), assume the development of an organizational culture mediates the inherent tensions such as between autonomy and control and efficiency and uncertainty, around knowledge work. What all the researchers seem to imply is the importance of (encultured) knowledge which is created through social interaction, which in turn builds mental organizational foundations, mediating inherent tensions and generating social norms.

### ***Encultured knowledge and Nonaka's theory***

Although encultured knowledge is similar in its emphasis on social interaction to *the cognitive (collective) dimension of sympathized (tacit) knowledge* in Nonaka's terms, the author does not emphasize the role of language itself in the mode as Blackler did. Alvesson & Kärrenman (2001) claim that many versions of KM, including approaches which focus on the social nature of knowledge and social relations, come close to an

approach to organizational culture focused on encultured knowledge. However, when viewed from Nonaka's perspective, it seems clear that, although encultured knowledge (or the cognitive dimension of sympathized knowledge) serves as a foundation of knowledge creation in an organization and is usually created at the first stage of the knowledge creation process, the above is again only one type of knowledge from the four modes of knowledge conversion in Nonaka's SECI model.

### ***Embedded knowledge and Nonaka's theory***

*Embedded knowledge* is the collective form of tacit knowledge (Lam, 2000) and resides in 'systemic routines in the relationships between, for example, technologies, roles, formal procedures, and emergent routine' (Blackler, 1995) and is, therefore, often referred to as *organizational routines*. For example, Nelson & Winter (1982) argued that (embedded) knowledge is retained as 'routines' in a firm, which are 'regular and predictable behavior patterns'. Strategic management researchers regard internal embedded knowledge as unique and inimitable resources in a firm and as a sustainable competitive advantage for the organization (see e.g. Prahalad & Hamel, 1990).<sup>7</sup> Embedded knowledge corresponds to *operational knowledge* in Nonaka's terms and is created through the internalization mode of knowledge conversion.

### ***Limitations of embedded knowledge-oriented organization***

Pentland & Rueter (1994) argue that the notion of routines as embedded knowledge is *static* and executed without explicit deliberation or choice. This is the limitation of the literature which focuses on embedded knowledge because it does not explain how to actually create this embedded unique resource in a firm. Zollo & Winter (1999) label these kinds of static routines as *operational routines* and claim that in a context where technological, regulatory and competitive conditions are subject to rapid change, there is a need for a shift from operational routines to *learning routines*, which involve the

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<sup>7</sup> Prahalad & Hamel (1990) define *core competence* (embedded knowledge), which is the key notion of their analytical framework, as the collective learning in the organization, especially for coordinating diverse production skills and integrating multiple streams of technologies. Interestingly, they use many case studies of Japanese firms such as Honda, Sony, NEC and Canon, regarding such Japanese firms as successful examples of companies which have led disparate businesses to coherent embedded competence.

mechanisms of knowledge evolution. Nonaka argues *learning routines* (operational knowledge) are constructed through a series of knowledge creation processes such as the knowledge conversion modes. In this sense, Nonaka's theory supplements the theoretical weakness of the KM approach as it focuses on embedded knowledge.

### ***Encoded knowledge and Nonaka's theory***

*Encoded knowledge* is 'information conveyed by signs and symbols' (Blackler, 1995), and exemplified by books, manuals, recipes, written rules and procedures and easy to transmit, for example, electronically. This type of knowledge is in line with collective *systemic knowledge* in Nonaka's theoretical framework, which is created through the combination mode of knowledge conversion. Lam (2000) assumes that an organization model of *Machine Bureaucracy*, in which most work is simple and repetitive, depends heavily on encoded knowledge (see Figure 3-4) and the author suggests that although it shares many common characteristics with the Professional Bureaucracy model, it relies on 'collective standardized (explicit) knowledge' which contributes to the efficiency and stability of an organization. As argued in the previous section, an IT driven-approach to KM is exemplified as this model because of its reliance on encoded knowledge.

### ***Limitations of encoded knowledge-oriented organization***

Whilst advocates of this approach believe that IT contributes to KM, from the viewpoint of Nonaka's theory, the model, as already argued, plays a limited role in the process of organizational knowledge creation. In short, this is partly because a large area of knowledge, such as tacit knowledge, is lost in the processes of translation to encoded knowledge through IT/IS tools and partly because the model is unable to cope with novelty or change since this is a structure designed to address routine problems because it utilizes only existing knowledge.

### ***Embrained knowledge and Nonaka's theory***

*Embrained knowledge* is characterized by individual/explicit knowledge and by abstract theoretical reasoning (Lam, 2000) and is dependent on the individual's cognitive ability (Blackler, 1995). This abstract embrained knowledge enjoys a privileged social status



within Western culture (Nonaka & Takeuchi, 1995; Blackler, 1995; Lam, 2000). In the early stages of the emergence of the knowledge society, many commentators concerned themselves with embrained knowledge. For example, Drucker (1993) argues that a *knowledge worker* who has systemic knowledge and specialist skills (therefore embrained knowledge) can contribute to enhancing productivity in a firm. This is, according to Drucker, because highly specialist knowledge plays a crucial role in addressing novel problems. Reich (1991), another influential commentator in the West, emphasized the emergence and expansion of *symbolic analysts* in a new era, who solve, identify and broker problems by manipulating symbols with specialized (embrained) knowledge. Both Drucker and Reich assumed (embrained) knowledge is developed mainly through a high level of formal education, which is characterized by the abstract stance of pedagogy. Embrained knowledge corresponds to (individual) *systemic knowledge* in Nonaka's terms, which is created through the combination mode of knowledge conversion.

### ***Limitations of emphasising embrained knowledge***

Lam (2000) points out the limitation of embrained knowledge acquired through external educational institutions and professional bodies.<sup>8</sup> According to Lam, *Professional Bureaucracy*, which is reliant on embrained knowledge, plays a limited role in addressing novel problems in an organization because in such an organization the use of tacit (experience-based) knowledge and acquired judgmental skills tend to be restricted within the boundaries of educational institutions or professional bodies. In other words, professional experts tend to interpret specific situations in terms of general concepts and place new problems in old categories. This insight into embrained knowledge is in line with Nonaka's theoretical assumption. Nonaka assumes that novel problems can mainly be addressed through the socialization and externalization modes, rather than the combination mode of knowledge conversion. Moreover, the authors who emphasize embrained knowledge did not connect it to organizational activities and therefore did not acknowledge the need for 'collective action' (such as social interaction among

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<sup>8</sup> Lam regards an organization that derives its capability from the formal 'embrained knowledge' of its highly trained individual experts as the *Professional Bureaucracy* (see Figure 3-4).

workers in an organization). On the contrary, Nonaka assumes that ‘new conceptual knowledge’ tends to be created through social interaction among members of a group triggered by metaphor and/or analogy.

### 3.3.4 Conclusions

In this sub-section, Blackler and Lam’s five types of knowledge and the related existing literature in the West were considered in relation to Nonaka’s SECI. This sub-section, as a conclusion incorporates those typologies of knowledge into the integrated framework of the TEAM linguistic framework and SECI model (see Figure 3-5).

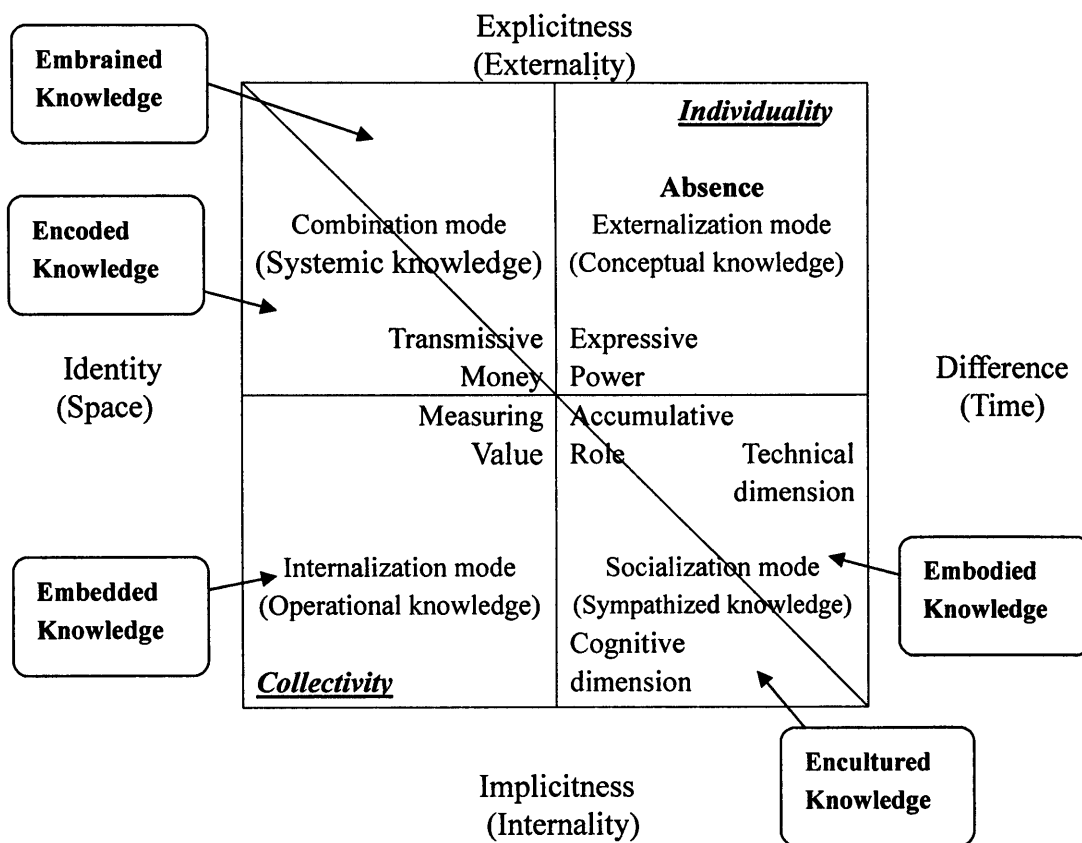


Figure3-5: Relationships between typologies of knowledge in the West and Nonaka’s SECI model (Source: Author)

The above figure clearly reveals that Nonaka’s SECI model offers a comprehensive framework for analyzing and integrating the different types of knowledge in the KM context, even in the West. The figure also suggests that few written sources mention *conceptual knowledge* (created through the externalization mode of knowledge creation)

in Nonaka's terms in the KM context in the West, which is the same result as in Chapter 2 (see Figure 2-11). Moreover, in spite of the dynamic nature of organizational knowledge activities, the arguments presented by Blackler (1995) and Lam (2000) and the existing literature related to KM tend to be quite static in their explanations. In other words, their arguments fail to address the way in which the different types of knowledge are sequentially created and related in an organization in a dynamic way, as Nonaka did, using the concept of the 'knowledge spiral' (section 2.6). This suggests that Nonaka's SECI model would compensate for the weakness of these arguments by presenting the perspective of a *dynamic* process of knowledge creation in an organization, combining different types of knowledge in sequential activities.

### **3.4 Examining the trans-nationality and applicability of Nonaka's theory in the actual context of the UK**

#### **3.4.1 Introduction**

Whilst the development of KM as a concept in the West has been examined in relation to Nonaka's SECI model (see section 3.2), five types of knowledge have been identified and incorporated into the integrated framework of the TEAM linguistic framework and Nonaka's SECI model (see section 3.3 and Figure 3-5 in particular). However, the 'actual' applicability of Nonaka's theory in the UK has not yet been examined. Therefore, this section shifts the focus towards the 'practices of KM' in the UK in particular. In other words, it examines the trans-nationality and applicability of Nonaka's theory in the UK, using an existing empirical case study; namely, Universal Consultancy, conducted by UK researchers.

#### **3.4.2 Examining Universal consultancy in terms of Nonaka's SECI model**

##### ***Universal consultancy as a knowledge-creating company***

Although a relatively small number of case studies which demonstrate a 'knowledge-creating company' in the UK have been conducted, one which does is the research of a knowledge Intensive Firm (KIF) in the UK, referred to as *Universal Consultancy*,<sup>9</sup> by Robertson et al. (2000) and Robertson & Swan (2003). Universal

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<sup>9</sup> This research kept the organization anonymous and referred to it only as *Universal Consultancy*.

Consultancy was founded in 1986 and is based in the south east of England. Robertson et al. (2000) states Universal Consultancy ‘develops completely new ideas (inventions), which it markets to clients as Intellectual Property Rights (IPR), and it also develops innovative solutions to organizational problems using existing concepts, ideas and technologies in innovative ways’. In this sense Universal Consultancy can be regarded as an archetype of a knowledge-creating company.

### ***Knowledge creation in Universal Consultancy***

The working style of Universal consultancy is characterized by *inter-disciplinary team working*, in which members’ backgrounds of disciplines are varied and teams are organized project by project (Robertson et al., 2000). At the start of any given project in Universal Consultancy, members of the inter-disciplinary team spend whole days together, ‘brain-storming’ and recording and putting forward relevant ideas (Robertson et al., 2000, p6).<sup>10</sup>

### ***Use of IT in Universal Consultancy***

Robertson et al. (2000) provides an interesting insight into the relationship between IT and knowledge creation in Universal Consultancy. According to Robertson et al. (2000), the opportunity to introduce Lotus Notes (a widely used application for supporting collaboration) in their projects came from the necessity to collaborate with scientists outside of the organization, that is, in the USA and Japan and was done in order to overcome temporal and spatial obstacles. Robertson et al. (2000) explain that prior to this, team members usually shared and created knowledge through face-to-face communication, rather than by IT. However, despite of the successful use of Lotus Notes on two major projects in collaboration with ‘associates’ in the USA and Japan, the exchange of knowledge returned to its original format, that is, face-to-face communication, while members of a team were in the UK and the usage of Notes decreased (Robertson et al., 2000). In other words, while team members are in the UK, there are no or few obstacles in temporal and spatial terms, and they choose verbal

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<sup>10</sup> This is a similar approach to *task forces* for developing new products in Japanese companies such as Mazda (RX7), Honda (City) and Canon (Mini-Copier). See Nonaka & Takeuchi (1995).

exchanges of knowledge with physical intimacy as the medium for knowledge creation. This may suggest some limitations or disadvantages of IT in the processes of creating knowledge and the importance of exchange and sharing of (tacit) knowledge through social interaction.

### ***Universal consultancy and Nonaka's SECI model***

In Figure 3-6 the practice of knowledge creation identified in Universal Consultancy is applied to the integrated framework of the TEAM linguistic framework and Nonaka's SECI model.

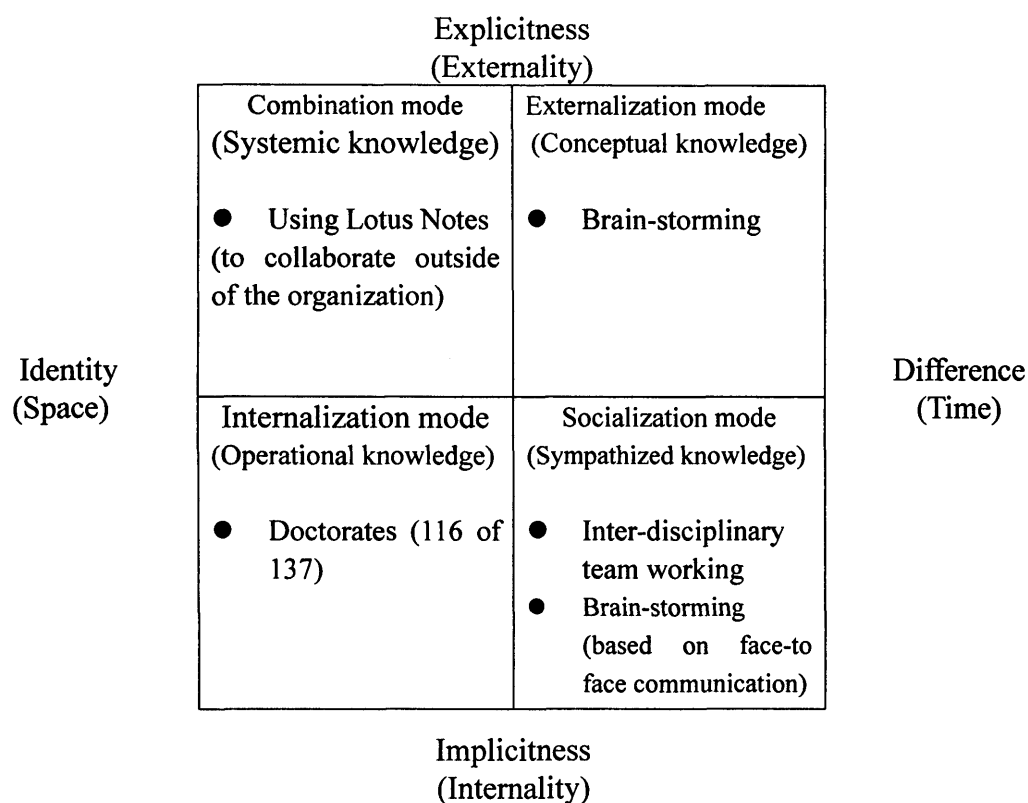


Figure3-6: Knowledge activities in Universal Consultancy within Nonaka's SECI model framework (Source: Author)

The working style of *inter-disciplinary teams* is quite similar to Nonaka's notions of a *cross-functional team* (or a *micro-community of knowledge*), which is mainly related to the socialization mode of knowledge conversion and 'brain-storming' is a typical process of knowledge creation. This can be referred to as a mixture of the socialization and externalization modes of knowledge conversion in Nonaka's SECI model. Moreover, the use of Lotus Notes falls into the combination mode of knowledge

conversion. In the analysis of Robertson et al., there is no mention of the internalization mode of knowledge conversion and the absence of this can be explained by the evidence that 116 out of 137 consultants at Universal Consultancy have the degree of Ph.D. In other words, necessary knowledge has already been *internalized* by each consultant. It can also be said that knowledge is internalized through 'learning by doing'. When taking this into consideration, the examination of the Universal Consultancy case study confirms the applicability of Nonaka's SECI model to a KIF in the UK context.

### **3.4.3 Examining Universal Consultancy in terms of Nonaka's five organizational conditions**

This sub-section examines the applicability of Nonaka's theory in the UK context by finding the presence and absence of the 'five enabling organizational conditions' in Universal Consultancy which Nonaka assumes will facilitate the processes of organizational knowledge creation (see section 2.7).

#### ***Organizational Intention***

Nonaka assumes that *organizational intention* (an organization's aspirations) as a form of a corporate strategy (or knowledge vision) facilitates the process of knowledge creation in an organization, leading to employee commitment and providing the most important criteria for judging a piece of knowledge. In Universal Consultancy, there do not appear to be strategies in place to achieve this, as Nonaka himself assumed there would be. The method used by Universal Consultancy to stimulate employee motivation and commitment is the establishment of a performance management system, known as divisional revenue targets (DRTs) and personal revenue targets (PRTs). With this system up and running, consultants are able to judge knowledge value through the project (Robertson & Swan, 2003). In order to fulfill the requirement of PRTs, consultants would generally be awarded a small number of projects at any one time through an internal or informal tendering system by e-mail. In short, the situation at Universal Consultancy is unlike Nonaka's assumptions and although organizational intentions such as a strategy or knowledge vision are vague, commitment and motivation have been developed by fostering a sense of individual responsibility through personal

revenue targets (PRTs), on which Nonaka places less emphasis.

### ***Autonomy***

Nonaka assumes that an organization that allows *individual autonomy* maintains greater flexibility in acquiring, interpreting, and relating information and although Nonaka does not emphasize it, the existing literature on KIFs in the West claims that having well-educated, qualified employees who form the bulk of the workforce is the precondition which allows individuals to act autonomously (see, e.g. Starbuck, 1992; Robertson et al., 2000; Alvesson & Kärreman, 2001). This is also true in the case of Universal Consultancy, where in 1998, 116 out of 137 members of the staff were consultants with doctorates who were allowed (and expected) to act autonomously through an internal e-mail tender system (See condition of *requisite variety*).

As for *organizational autonomy*, a self-organizing, cross-functional team, where there are members from diverse backgrounds, is the ideal condition that provides organizational autonomy. At Universal Consultancy, as mentioned earlier, this takes the form of a project team, which is a self-formed and self-managed basic unit, in which consultants work in an inter-disciplinary and collaboratory manner. In short, Universal Consultancy has a high level of individual and organizational autonomy, as Nonaka assumes it would.

### ***Fluctuation and Creative Chaos***

Universal Consultancy depends on project teams and project leaders and whilst in some projects very few team meetings take place, in others many are arranged (Robertson & Swan, 2003). This kind of ad-hoc approach makes for *fluctuation* and *creative chaos* in an organization, which Nonaka (Nonaka & Takeuchi, 1995) assumes will improve the organizational knowledge system. Moreover, a typical project meeting at Universal Consultancy will adopt a 'creative abrasion' approach to knowledge creation, which emphasizes argumentative cognition, rather cooperation. This has the potential for fluctuation and creative chaos and this has been identified in the organizational structure at Universal Consultancy.

### ***Information Redundancy***

*Redundancy* is the existence of information that goes beyond the immediate operational requirements of organizational members and this is in evidence at Universal Consultancy, where a redundant structure exists in the form of an e-mail system. According to Robertson et al. (2000), regardless of how important, sensitive or trivial, the majority of e-mails were sent to everyone and replies also went to everyone without any effective classification system (Robertson et al. 2000).<sup>11</sup> Nonaka (Nonaka & Takeuchi, 1995) claims that for western managers 'redundancy may sound pernicious because they tend to be preoccupied with the idea of efficient information processing or uncertainty reduction'. Indeed, Robertson et al. (2000) consider that this internal overlapping of information, which is embedded in organizational culture, constrains management efficiency due to the high volume of communication flow. However, this type of overlapping knowledge is, according to Nonaka, regarded as a knowledge enabling condition.

### ***Requisite Variety***

As argued earlier, Nonaka suggests that *requisite variety* is one of conditions that advance knowledge creation within an organization. At Universal Consultancy, the organizational structure is in the form of a knowledge acquisition system, again by e-mail and, according to Robertson (2000), in this company there is a project leader who collates relevant knowledge for the project and at the initial stages negotiates with consultants from different disciplines through e-mail. This flat information system, in which the different units are interlinked within a network, enables personnel to collect appropriate information and deal with complex and specialized client demands in a relatively ideal system that realizes requisite variety in the organization.

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<sup>11</sup> Therefore division managers received on average between 150 and 200 e-mails each day and other consultants only slight fewer (Robertson et al. 2000)



## Conclusions

Whilst Nonaka has developed five organizational conditions through which organizational members may create and generate knowledge, most of them have been found in the organizational systems of Universal Consultancy. *Individual and organizational autonomy, fluctuation and creative chaos*, (information) *redundancy*, and *requisite variety* have been identified as almost the same structures which Nonaka assumes. As for *organizational intention*, whilst Universal Consultancy has weak organizational intention, motivation is provided through performance management systems. This suggests the applicability and trans-nationality of Nonaka's five conditions to the UK context to a great extent.

Table 3-3: Nonaka's five organizational conditions in Universal Consultancy

Nonaka's five conditions for knowledge creation	Universal Consultancy
Organizational intention	Low (but a performance management system)
Individual autonomy:	High (based on well-educated, qualified employees)
Group autonomy:	High (a cross- functional team)
Fluctuation / Creative chaos	High (a ad-hoc approach to managing a project team)
Information redundancy	Exist (a redundant e-mail system)
Requisite variety	High (an e-mail system for collecting project members)

## 3.5 Generic conclusions

### *KM discourses in the West and Nonaka's SECI model*

This chapter has attempted to address the question of whether Nonaka's theory is trans-national and applicable in the KM context in the UK in both senses of theory (conceptualization) and practice. First of all, KM discourses in the West were identified by looking at an existing contents-analysis of journal article abstracts and these discourses were related to Nonaka's SECI model. The findings indicated that all these KM discourses in the West nearly fitted into Nonaka's framework of the SECI model, which is integrated with the TEAM linguistic structure. Moreover, the small amount of

literature related to KM in the West which focuses on the *externalization* mode of knowledge conversion in Nonaka's terms, has been identified.

#### ***Five types of knowledge in the West and Nonaka's SECI model***

The preceding examination has also identified that the five types of knowledge propounded by UK researchers, can be incorporated into the integrated framework of the TEAM linguistic structure and Nonaka's SECI model. The examination has also confirmed that the literature which has examined these types of knowledge retains a *static* perspective and does not combine them in a sequential way. Taking all this into account, it can be concluded that Nonaka's theory can not only provide a wider, more comprehensive theoretical framework which covers insights from the conceptualization of KM and complements and reconciles the limitations and conflicts in the West and the UK in particular, but can also offer the *dynamic* perspective of the *knowledge spiral*, which regards varied knowledge activities in an organization as linked *sequential processes*.

#### ***Nonaka's theory in the empirical context of the UK***

In section 3.4, the trans-nationality and applicability of Nonaka's theory was examined in the context of 'actual' (empirical) management practice of the UK. The examination of Universal Consultancy supported the trans-nationality and applicability of Nonaka's SECI model to the UK context by identifying three out of four modes of knowledge conversion and four out of five of the conditions for organizational knowledge creation in Nonaka's terms.

#### ***Towards urban regeneration***

In taking all this into consideration, it can be concluded that there is a possibility that Nonaka's theory may be trans-national and applicable to the KM context in the UK in particular, in both senses of theory and practice and that the cultural tendencies of Japan in Nonaka's theory do not seem to be prejudicial to its applicability. The examination also suggests that Hypothesis 1 may be true, although more empirical examinations are needed to further verify this. Now the examination can shift to investigating Hypothesis

2; that Nonaka's theory can be applied to organizations engaged in strategy-planning for urban regeneration in the UK in both theory (Chapter 4 & 5) and practice (Chapter 6). As argued in Chapter 1, because there is no comprehensive theoretical framework which allows for a comparison to be made between urban regeneration (process) theories and Nonaka's theory, from either an epistemological and ontological point of view, the following examination looks in great detail at *urban planning theory*, rather than urban regeneration literature, which is an adjoining and overlapping area of both urban regeneration and organizational theory. In particular, two sets of *procedural theory of planning*, namely; *Systems Theories and Rational Theories of Planning*, and *Communicative Planning* have been identified as the materials of the theoretical examination. Therefore Chapter 4 looks at *Systems Theories and Rational Theories of Planning* and Chapter 5 at *Communicative Planning* aimed at ultimately examining the applicability of Nonaka's theory to the theoretical context of urban regeneration.

## **CHAPTER 4: AN EXAMINATION OF SYSTEMS THEORIES AND RATIONAL THEORIES OF PLANNING IN TERMS OF NONAKA'S THEORY**

### **4.1 Introduction**

#### ***Reasons for choosing particular theories***

This chapter and the next aim to investigate the applicability of Nonaka's theory to urban planning and, ultimately, urban regeneration (via urban planning), by critically examining sets of urban planning theories in terms of Nonaka's theory of organizational knowledge creation. This chapter looks at Systems Theories and Rational Theories of Planning, while the next looks at Communicative Planning. One can argue that urban regeneration is complex and characterized by the use of many different theoretical frames of reference, often by the same organizations for different tasks. However, there are several advantages to focus on particular (sets of) theories. Firstly, historically, particular theories often exist which had and have had a significant impact on- or/and gained prominence in- the fields of urban planning and urban regeneration at the fundamental or implicit level. These can be identified as past of the *Zeitgeist*. By identifying the limitations of these historically dominant theories with consistency, the reasons why the application of these theories did not address urban problems can be identified. Secondly, the PhD thesis itself requires logical consistency. Choosing these dominant theories, rather than the use of many different theoretical frameworks, and comparing them with Nonaka's theory in terms of their epistemology and ontology, can more easily satisfy this requirement. Finally, through this comparison, it will be possible to build a new theory (for urban regeneration) with a solid grounding.

#### ***Reasons for choosing Systems Theories and Rational Theories of Planning***

There are, as Chapter 1 argued, no comprehensive theoretical frameworks in the field of urban regeneration processes in particular, which suggest concrete ways in which urban regeneration strategy-making and its processes are effectively conducted (see Chapter 1, Section 1-6). This argument is, as mentioned in Chapter 1, supported by recent research and documents on urban regeneration such as those from the Urban Task Force (see

DETR, 1999), the Social Exclusion Unit (see SEU, 1998), the Scottish Social Exclusion Network. All these, however, pay minimal attention to *the process* through which an urban regeneration policy is created, but focus mostly on *substantive* issues (*what to do*) (also see Carley et al., 2000a; Robert & Sykes (eds.), 2001). In order to produce meaningful results in this research, this chapter and the next look in great detail at urban planning theories with the process perspective (which is an adjoining and overlapping area of both urban regeneration and knowledge management), rather than urban regeneration literature. This is because it allows for a comparison with Nonaka's theory according to the epistemological and ontological positions they take.

### ***Procedural theory as the materials for the theoretical examination***

Several urban planning theories such as systems theory of planning (Keeble, 1969; McLoughlin, 1969), rational theory of planning (Faludi, 1973, 1986, 1987), public choice theory and libertarian approaches (see e.g. Sorensen & Day, 1981; Pennington, 2000), regime theory (see e.g. Lauria and Whelan, 1995), pragmatic approaches (Hoch, 1996, Harrison, 2002) and foucauldian approaches (see e.g. Flyvbjerg, 1998; Flyvbjerg & Richardson, 2002) have been identified. Given that this thesis is concerned with the *process*, rather than the *substantive* dimension of urban regeneration, the procedural theories, as distinguished from substantive theories (see Faludi, 1973 and also see Chapter1, Table 1-4), were chosen for this thesis. Among the several urban planning theories mentioned above, *Systems Theories and Rational Theories of Planning* and *Communicative Planning* have been identified as the main 'procedural' theories of urban planning, and therefore these theories were chosen for the theoretical examination. The other reason for choosing these sets of theories is that both sets of theories have characteristic features in the treatment of knowledge used, which allow for a comparison with Nonaka's theoretical position. Moreover, from a historical point of view, these two sets of theories had or have, as will be explained later, had a significant impact on urban planning thought, contributing to the *Zeitgeist* (see e.g. Taylor, 1998). More justification for focusing on these two sets of theories will be given next and in Chapter 5.

### ***The advantages of focusing on Systems Theories and Rational Theories of urban planning<sup>1</sup>***

As mentioned earlier, one of the main reasons for choosing Systems Theories and Rational Theories of Planning for the theoretical examination of this thesis is their historical influence. Systems Theories and Rational Theories of Planning have had a significant influence on- and in the 1960s gained prominence in- the field of urban planning theory in the UK (see e.g. Healey et al., 1982; Taylor, 1998; Allmendinger, 2002).<sup>2</sup> The historical significance of these theories in the UK may be seen in the fact that a well-read text, 'Urban Planning Theory science 1945' published by Taylor (1998) spent one-third of its pages explaining these theories and their attracted criticisms. The fundamental aspect of Systems Theories and Rational Theories of Planning, which, as will be argued, in relation to perspectives of knowledge and knowledge creation, lies in the emphasis on the specialist (e.g. planners in planning authorities) with special (scientific) knowledge. In this sense, these theories, as already argued in Chapter 1, either explicitly or implicitly, gave the theoretical rationale to the British urban planning systems established in 1947 (see e.g. Faludi, 1973; Couch, 1990), systems which focus on land-use planning and development control carried out by town planners with specialist knowledge.

### ***Application of Systems Theories and Rational Theories of Planning***

Broadly speaking, the application of these theories to addressing urban problems in the real context in the UK from the 1950s onwards took the form of, for example, building or rebuilding whole cities or large parts of them, such as new towns and comprehensive (housing) redevelopment of the inner areas of many cities. Significantly, these applications of Systems Theories and Rational Theories of Planning caused considerable problems and led to widespread public protest (see Taylor, 1998) and therefore many researchers criticized this planning approach to urban problems (see e.g.

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<sup>1</sup> The research presented here, however, focuses more on Rational Theories of Planning because its aim is to examine *procedural* (rather than substantive) issues associated with decision-making in the urban planning context in general and in urban regeneration in particular.

<sup>2</sup> *Systems Theories of Planning* in particular have ongoing influences in particular areas of urban planning such as Cost-Benefit Analysis, Retail Impact Analysis, Traffic Impact Analysis and Environmental Impact Analysis (see Allmendinger, 2002).

Young & Willmott, 1957; Dennis, 1970; Davies, 1972; Berman, 1982; Taylor, 1998).<sup>3</sup> For example, Young & Willmott's case study on urban housing redevelopment in Bethnal Green (1957) and Dennis's work on clearance and comprehensive redevelopment of housing in Sunderland (1970) demonstrated that planners conducted large scale development, focusing mainly on the physical development and based on their professional judgment, which tended to ignore the social aspects of redevelopment such as richness of community and the political aspects of consultation with inhabitants. Another study in Newcastle upon Tyne conducted by Davies (1972) was similarly critical of 'evangelistic bureaucrats'. Moreover, Berman's work on the major schemes for new urban motorways (1982) demonstrated that by constructing motorways, communities were disrupted and people's homes and neighbourhoods were sliced by them. Furthermore, although regional and new town policies since 1945 had promoted the dispersal of population and economic activity away from the large, congested cities, such top-down policies could not see that out-migration of people and jobs from the inner cities would be accompanied by increased urban unemployment, physical dereliction of vacated areas or social and economic deprivation for those left behind (Barnekov et al., 1989).

Taking all these above arguments into account, it can be argued that by more closely examining the reasons why the application of Systems Theories and Rational Theories of (urban) Planning to urban planning could not deal with (or resulted in) urban problems from a new perspective; namely knowledge and knowledge creation, real progress in urban regeneration studies will be made.

### ***Aims of this Chapter***

This chapter therefore aims to accomplish this task by critically examining Systems Theories and Rational Theories of Planning in terms of Nonaka's theory of

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<sup>3</sup> Both theories have also received heavy criticism for their abstractness and unreality, lacking any 'content' and 'contextness', or their 'top-down,' rather than 'bottom-up', views (Thomas, 1982; Taylor, 1998; Allmendinger, 2002).

organizational knowledge creation. This can in turn investigate the applicability of Nonaka's theory to the urban planning context and ultimately the urban regeneration context. In other words, the theoretical part of Hypothesis 2 proposed in Chapter 1 is examined. In order to accomplish this aim, an extensive range of literature regarding the two theories of planning has been collected, presented and critiqued and three approaches set up. Firstly, the affinities of their theoretical perspectives are identified and *rationality* as a key concept for both theories is examined in terms of the TEAM linguistic framework (in section 4.2). Secondly, the treatment of *knowledge* and *knowledge creation* in Systems Theories and Rational Theories of Planning is examined in conjunction with Nonaka's SECI model reinforced by the TEAM linguistic structure (in section 4.3). The treatment of knowledge presented by critiques of Rational Theories of Planning is also examined. This provides the opportunity to link Nonaka's theory to knowledge utilized in Systems Theories and Rational Theories of Planning and will also identify the scope of the treatment of knowledge utilized in them. Thirdly, two types of rational planning models suggested by Faludi; namely, (1) an *organizational structure model of planning agencies* and (2) a three-phase *operational model of planning agencies* are examined in relation to Nonaka's theory (in sections 4.4 & 4.5).

## **4.2 Examining the concept of rationality in Systems Theories and Rational Theories of Planning in terms of the TEAM linguistic framework**

### **4.2.1 Affinities between Systems Theories and Rational Theories of Planning**

A number of theorists such as Friedman (1987), Taylor (1998) and Allmendinger (2002) point out that Systems Theories and Rational (process) Theories of Planning tend to be categorized by one of their theoretical affinities and the research presented in this chapter upholds this view as both theories fundamentally take the same position on the treatment of knowledge. The conflated category is often referred to as *Procedural Planning Theory* (PPT) in the UK (see Allmendinger, 2002) and as the *Science of Policy Analysis*<sup>4</sup> in the USA (see Friedmann, 1987; Healey, 1997).

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<sup>4</sup> For example, Healey (1997, Chapter1) points out that the science of policy analysis which is of American origin, provides rational techniques of making public administration more efficient, focusing on identifying objectives, and developing and implementing appropriate means to achieve



### ***Affinities between Systems Theories and Rational Theories of Planning***

A number of affinities apparent in these two sets of planning approaches have been identified. Firstly, both theories of planning view a city (for Systems Theories) or an organization as planning agencies (for Rational (process) Theories of Planning), as a *system(s)*, which is understood as ‘a set or assemblage of things connected, associated, or inter-dependent, so as to form a complex unity’ (the Oxford English Dictionary, quoted in Taylor, 1998). The testimony of this is that, as Friedmann (1987) points out, when the above view is applied to the image of a city or an organization, concepts such as input, output, environment and complex ‘feedback loops’ are often used like a *machine system*. Secondly, both systems and rational process approaches assume that the structure of a system is determined and re-assembled towards a given goal for addressing the problems associated with a city by seeking the most *effective* way towards their resolutions and aims, which can be changed or modified depending on changes in the external environment. In other words, a system should be ‘controlled’ in a *rational* way, mainly using an objective method normally modeled on quantitative natural science. Thirdly, both systems and rational views rely heavily on *specialists* (e.g. planners), rather than citizen participation, as an agent for addressing the problems in a city, because it is assumed these specialists have technical competence or expertise to generate and evaluate all alternatives (courses of actions) prior to making a (political) choice (Faludi, 1987). Fourthly, both theories tend to regard planning activities by specialists as apolitical, ‘technical’, as if the adoption of a natural scientific approach could lead to the identification and solution of urban problems or the ‘optimal’ state of any given system, totally independent of considerations of values or political debate (see Taylor, 1998).

### ***Rationality as a fundamental concept***

What is fundamental is that Systems Theories and Rational Theories of Planning are based on the supposition of *rationalism*. In fact, Faludi (1973) defines planning as ‘a

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them.

*rational* process of thought and action, which ultimately aims (as science does) at promoting human growth' (Faludi, 1973, p25) and regards an urban planner (in public sectors) as an agent who takes 'intelligent, *rational* action' (emphasis added). In spite of the fact that theorists of rational planning, like Faludi, emphasise *rationality*, attempts to define rationality in an urban planning context are often made difficult by confusion and contradictions. For example, the results of an international workshop on 'Rationality in Planmaking' held at the University of Reading in 1982 highlighted the considerable differences between the meanings and uses of rationality adopted by workshop participants (see Breheny & Hooper, 1989). By acknowledging the complex nature of the term 'rationality', the research should start by investigating the definition of rationality as a fundamental notion of both theories of planning because the notion of rationality reflects the premise in general, and knowledge activities within an organization in particular, of those theories (see section 2.2). In order to connect the examination of the concept of rationality in Systems Theories and Rational Theories of Planning with the aim of this research, the next sub-section examines it in terms of the TEAM linguistic framework.

#### **4.2.2 Rationality in Systems Theories and Rational Theories of Planning within the TEAM linguistic framework**

##### ***Definition of rationality***

Allmendinger (2002) starts his investigation of rational (process) theories of planning by explaining that the term 'rational' is etymologically rooted in the Latin 'ration', which means 'reason'. Darke (1989) also suggests that there are numerous dualisms related with rationality such as reason and experience, reason and emotion, rationality and relativism. It is also argued that reason is *explicit* while emotion or experience is *implicit (tacit)*. Furthermore, the emphasis on rationality, or explicit reason, in Systems Theories and Rational Theories of Planning means to overlook or eliminate another aspect of dualisms such as *implicit* experience and emotion.

### ***Weber's methodology and Simons' epistemology***

According to Reade (1989), the concept of rationality in these theories of planning is ultimately rooted in Max Weber's work. Weber, by taking a value-free stance, 'contended that social science had to adhere to the same formal standards as the physical sciences, especially to the principle by which personal inclinations and preferences were to be brutally excised from analysis' (Friedmann, 1987, p99). Value judgment, he asserted, had a nonscientific origin and these were a result of culture, tradition, social position, and personal preference, and, as such, had no place in scientific discourse (Friedmann, 1987, p99). This suggests that since both theories apply Weberian scientific methods, they can be assumed to share the same structure as physical science in the urban planning context, which separates facts from values.<sup>5</sup> There is an implication of the application of Weber's value-free scientific methodology to planner's actions in relation to organization studies (this was argued in Chapter 2). That is to say, Weber's stance on a value-free scientific methodology is consistent with Simon's work (see 1964, 1979) on the organization theory of information-processing in that both approaches emphasize rational elements and ignore implicit and irrational factors such as emotion and feelings. In this sense, Rational (process) Theories of Planning and organization theories in the West (including North America and Europe) also have the same root in Simon.<sup>6</sup> This suggests that Systems Theories and Rational (process) Theories of Planning are grounded in the same (Cartesian-like) monist, rather than pluralist, epistemology, which has already been critically reviewed in this research in terms of its narrow epistemology in Chapter 2 (see section 2.2).

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<sup>5</sup> Here a scientific method includes the two processes of premise-reasoning and premise-testing (see section 1.5).

<sup>6</sup> In fact, many planning academics such as Friedmann (1987), Healey (1997), Sandercock (1998), Taylor (1998) and Mäntysalo (2002) point out that Systems Theories and Rational (Process) Theories of Planning are rooted in Herbert Simon's model of decision making. For example, Friedmann (1987), reviewing the extensive literature of planning theory or planning thought, claims that although various schools related with Systems Theories and Rational Theories of Planning (or policy analysis) can be distinguished, all of them lead back to Herbert Simon's work on decision theory. Healey (1997, p23) also points out that 'principles of policy analysis drew on Herbert Simon's ideas of management by objectives, rather than setting legal rules for administrators to follow'.

### ***Weber's notions of purposive and value rationality***

A number of academics in the field of urban planning have made further investigations into the concept of rationality, which has been developed by drawing on Weber and Karl Mannheim's work. Weber expanded the notion of rationality and made the distinction between *purposive rationality* (the purposive rational action), which is concerned with a choice of its means and not concerned with ends or objectives, and *value rationality*, which is related to ends and not concerned with means (if ends adopt a given value), which are often argued in the urban planning context (see Reade, 1989).<sup>7</sup> In addition to this, Weber viewed *purposively rational action* as increasingly characteristic of modern society in the form of the bureaucratic organization, which is typically characterized as enlightenment based on the belief of reason facilitated by science (see Saeki, 1995a).

### ***Mannheim's notions of functional and substantial rationality***

A distinction between the types of rationality made by Weber had an influence on Karl Mannheim, whose works were more influential to urban planning than Weber's (see e.g. Banfield, 1959; Faludi, 1973). Furthermore, Mannheim (1940) distinguished two types of rationality; namely *functional* and *substantial rationality*.<sup>8</sup> It is widely acknowledged that functional rationality as presented in Mannheim corresponds to purposive rationality in Weber's terms while substantial rationality relates to value rationality.

### ***Friedmann's functional and normative planning***

Building on Mannheim and Weber, Friedmann (1966/7) differentiates between *functional planning* and *normative planning* and he claims that *functional planning* is a

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<sup>7</sup> By values-rational action, Weber meant that type of social behaviour that is governed by an unswerving acceptance of the definition of specific types of acts as moral imperatives (Reade, 1989). *Value rationality* is related to ends. If ends adopt a given value, means are not considered. On the other hand, *the purposive rational action* is concerned with a choice of its means and not concerned with ends or objectives.

<sup>8</sup> Mannheim (1940, p53 & p58) argues that criteria of *functional rationality* are (1) it is organized with reference to a definite goal and (2) it can be adjusted in calculating one's own action while *substantive rationality* is defined as 'an act of thought which reveals intelligent insight into the inter-relations of events in a given situation' or 'capacity for independent judgment'. It is obvious from these accounts that functional rationality is concerned chiefly with *means* to achieve previously defined ends in a scientific or mathematical manner while substantial rationality is related to *ends* which is related to decision-making or judgment based on individual thought and insight.

mode of planning in which ‘the planner assumes the goals to be given in the situation and is rational with respect to the means only’ (Friedmann, 1966/7, quoted in Faludi, 1973, p172). On the other hand, *normative planning* is concerned chiefly with the ends of action. Faludi (1973), advocating normative planning, also argues that only where both the ends and the means of action are judged rationally (that is, when it is both functional and normative), can planning be described as substantially rational.<sup>9</sup>

### ***Applying the arguments on rationality to the TEAM linguistic framework***

It will be useful to apply these associated arguments on the concept of rationality to the TEAM linguistic framework (see Figure 4-1). It is, on the one hand, apparent in the concept of *(functional) rationality* as a main focus in Systems Theories and Rational Theories of Planning in *functional planning* falls into the quadrant of the *technical (quantitative) calculation* as a derivative of the social language of *Money*. This is because *(functional) rationality* as a concept requires the *explicit* form, which has a horizon to *identify* it with others and relies on the linguistic function of *transmitting* meaning. On the other hand, the concept of *substantial rationality (value rationality)* in *normative planning* falls into the quadrant of the *planned-decision* as a derivative of the social language of *Power*. This is because *substantial rationality (value rationality)* requires *explicit* form, which has a horizon to *differentiate* from others and relies on the linguistic function of *expressing* meaning (see again Figure 4-1). The suggestion here is, that using the TEAM linguistic framework, at the initial stage of the argument on the concept of rationality in the context of urban planning, the emphasis was placed on the dimension of the technical calculation (Money) and it expanded to the dimension of planned-decision (Power).

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<sup>9</sup> Banfield also applied Mannheim’s distinction to Urban planning as follows “It may be noted in passing that a plan at a lower level of generality may be a highly rational elaboration of a plan which at a higher level of generality is quite irrational. Thus, a housing authority may decide capriciously to build projects rather than rehabilitate dilapidated buildings and then, having made this crucial decision, choose with great care among the various ways of building projects. We will say that an operational program or plan made in this is functionally rational but substantially irrational”. (Banfield, 1955, p.319 quoted in Reade, 1989, p83)

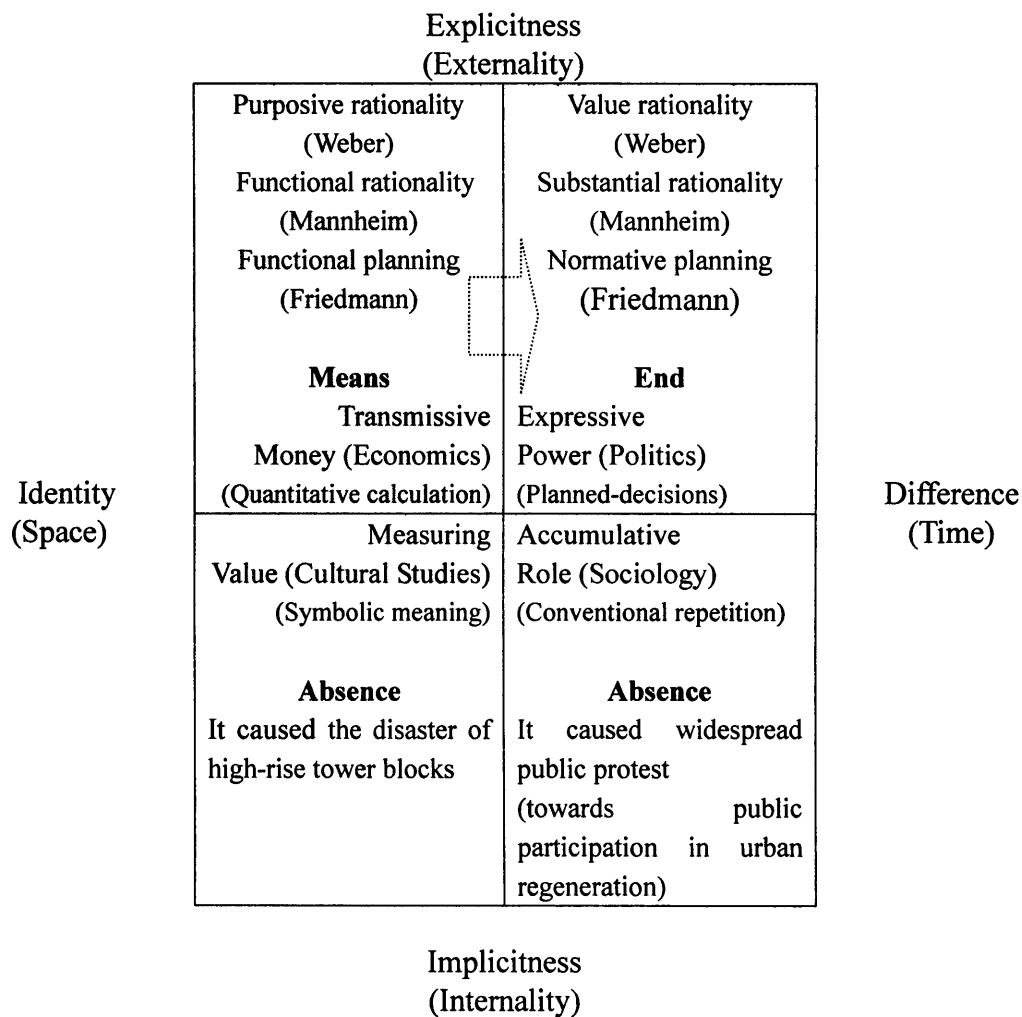


Figure4-1: The concepts of the rationality in Systems Theories and Rational Theories of Planning within the TEAM linguistic framework (Source: Author)

### ***Limitation of (functional) rationality***

By using the TEAM framework, some limitations of the suppositions of Systems Theories and Rational Theories of Planning are identified (see again Figure 4-1). Firstly, the heavily reliance on *rationality* in general and *functional rationality* (*purposive rationality*) in particular is problematic because this is a far too narrow supposition which corresponds only to one of the four functions in the TEAM linguistic framework. In other words, the over-simplification that human beings act in rational ways cannot involve other aspects of the nature of human actions, which are related to Politics (*Power*), Sociology (*Role*), and Cultural studies (*Value*). Moreover, functional (purposive) rationality is never characterized as an act in itself, but only with reference to its position in the entire complex of conduct of which it is a part. In this sense, the

shift of emphasis to *substantial rationality* (*value rationality*) in *normative planning* is reasonable.

### ***Limitations of substantial rationality***

Secondly, *substantial rationality* (*or value rationality*) as an expanded notion of *functional rationality* (*purposive rationality*) in Systems Theories and Rational Theories of Planning also seems problematic because the concepts of substantial rationality cannot be 'rational' in the natural 'scientific' sense.<sup>10</sup> In other words, substantial rationality as a *political* action (in the quadrant of *Power* of the social language) is utilized by means of 'irrational' elements such *imagination* and *intuition* towards ordering an uncertain future (see Figure 4-1). This, also inevitably involves the dimension of making a definite decision among citizens' different opinions and interests in an attempt to realise a desirable future for a city. In this sense, Systems Theories and Rational Theories of Planning in general and the concept of normative planning in particular fail to adequately acknowledge the *political* nature of urban planning, which has to rely on value-judgment, rather than pure rational thinking.

### ***Lack of awareness of a sociological aspect***

Thirdly, Systems Theories and Rational Theories of Planning are problematic because they cannot incorporate *social* (*sociological*) aspects (in the quadrant of *Role* of social languages and *conventional repetitive* of its derivatives) of urban planning into their theories, which cannot be captured through natural scientific methods (see Figure 4-1).<sup>11</sup> In other words, as Jacobs (1961) points out, Systems Theories and Rational Theories of Planning lack an adequate empirical understanding of the real-life of cities (such as citizens' attachment and feelings to their locality and a sense of a place), which might be captured through quantitative methods. In the urban planning (or urban renewal) context in the UK, the occurrence of widespread public protest in the 1960s caused by

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<sup>10</sup> If we wish to pursue particular objectives (ends), it is relatively rational to adopt those patterns of behaviour which will best achieve it. It cannot be, however, more rational to choose one objective rather than another without given reasons.

<sup>11</sup> If any focus in Systems Theories and Rational Theories of Planning is on the quantitative or physical aspects of the social issues (see Taylor, 1998).

implementing drastic housing redevelopment and the major urban motorway schemes<sup>12</sup> could be interpreted as the absence of such sociological understanding or as ignorance of the historically *accumulated* function of a city. The ongoing rise of awareness of *public participation* in urban planning in general (and in urban regeneration in particular), may be an approach to reacting to such a lack of awareness of a sociological perspective in plan-making, which is thought to overcome the limitation of Systems Theories and Rational Theories of Planning.

### ***Lack of the awareness of a cultural aspect***

Fourthly, Systems Theories and Rational Theories of Planning are problematic in terms of not incorporating the *cultural* aspect (in the quadrant of *Value* of social language) of citizens' cognition into their theories (see Figure 4-1). According to the school of symbolic interactionism (see, e.g. Blumer, 1969; Relph, 1976), people (citizens) define and interpret (or *measure*) their situation (such as an urban planning scheme), drawing on their own *cultures*, which are socially constructed through interaction between citizens and/or between citizens and the place where they live, and this is used as a frame of reference, rather than some sort of scientific determinism. An aesthetic and tangible dimension of culture, such as a landscape or cityscape, is an example of the cultural production of a city, which cannot be considered in the framework of Systems Theories and Rational Theories of Planning. It can be said that the disaster of high-rise tower blocks in the UK came from a lack of understanding of the cultural aspect of urban planning. In other words, it may not be the physical environment which was substantiated as culture in the UK.

### ***Limitation of the premise posited***

Although a number of academics claim the unrealistic nature of Systems Theories and Rational Theories of Planning in terms of losing the connection to empirical work (see

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<sup>12</sup> Regarding examples of lack of empirical understanding of the real-life of cities in urban planning or urban renewal, see Young & Willmott (1957)'s case study on housing redevelopment in Bethnal Green, Dennis (1970)'s work on clearance and comprehensive redevelopment of housing in Sunderland, Davies (1972)'s work on 'evangelistic bureaucrats' in Newcastle upon Tyne and Berman (1982)'s work on the major schemes for new urban motorways.



e.g. Jacobs, 1961; Friedmann, 1987; Weaver et al., 1989; Schön, 1995; Healey, 1997; Sandercock, 1998; Allmendinger, 2002; Pennington, 2002), the problems with these theories does not directly imply a significant limitation of the scientific approach in its procedure. Rather, the narrow premise of a 'human-being who acts in a rational way' in these theories seems problematic, resulting in formalistic, abstract and unrealistic theories. As argued in Chapter 1, if a more realistic theory of urban planning in general (and urban regeneration in particular) should be constructed in the academic field, then it is crucial to explore and posit firm premises which include the irrational and illogical, as well as rational and logical elements of human actions in theory-generation.

#### **4.2.3 Conclusions**

It can be concluded from the previous analysis that because of their heavy reliance on the narrow supposition of (functional) rationality, Systems Theories and Rational Theories of Planning fail to comprehensively incorporate the multifaceted aspects of urban planning into the premise. In applying the TEAM linguistic approach to urban planning, planners as planning subjects do not always act in rational (calculable) ways. Rather rational (economic), political, social, and cultural factors sometimes motivate them. Or their actions may be affected by a mixture of *political*, *social*, *cultural* and *rational (economic)* factors. A city, including its citizens, as an object of urban planning also has to be seen as one which should be planned and reconfigured not only by rational (economic) thinking, but also based on political, sociological and cultural perspectives. What Systems Theories and Rational Theories of Planning need is to establish a wider general framework to comprehensively grasp aspects of human behaviours and perspectives related to urban planning. Given that the TEAM framework posited wider and more comprehensive premises, assuming a 'human being who acts in rational (economic), political, social and cultural ways, the possibility exists that the TEAM linguistic framework may provide an alternative and realistic premise for urban planning theory in general, incorporating the supposition posited in Systems Theories and Rational Theories of Planning. Moreover, given that Nonaka's SECI model covers all the four aspects of the TEAM framework in an organizational context (see Chapter

2), it can be said that Nonaka's theory is more applicable than Systems Theories and Rational Theories of Planning to the organizational (procedural) context of urban planning in general in its theoretical premise.

In order to make a closer examination on the applicability of Nonaka's theory to the urban planning context and ultimately in urban regeneration, the next section investigates the relationship between 'knowledge' utilized in Systems Theories and Rational Theories of Planning and Nonaka's SECI model.

#### **4.3 Examining knowledge utilized in Systems Theories and Rational Theories of Planning in terms of Nonaka's SECI model**

##### **4.3.1 Knowledge utilized in Systems Theories and Rational Theories of Planning**

Knowledge utilized in Systems Theories and Rational Theories of Planning is often referred to as *objective* (Popper, 1973; Faludi, 1986), *scientific* (Friedmann, 1987), *positive* (Weaver et al., 1989), *professional* (Schön, 1995) or *technical knowledge* (Mazza, 2002). These types of knowledge appear to be rooted in Popper's work. By introducing objective knowledge, Popper (1973) made an attempt to eradicate the common sense theory of knowledge (which is a tradition that can be traced to Aristotle) as a subjective blunder, and to replace it by an objective theory of essentially conjectural knowledge (Popper, 1973 quoted in Faludi, 1986, p61). It is obvious from this statement that Popper eliminated the use of the *common sense type of knowledge* from his theoretical framework and focused only on *objective knowledge* as the only vital kind of information. Faludi (1986), drawing on Power's argument, emphasises the importance of *objective knowledge* in the urban planning context, which he views as objective and hypothetical.

##### ***Knowledge defined by Weaver et al. and Innes***

Weaver et al. (1989) also define knowledge utilized in Systems Theories and Rational Theories of Planning as 'information gained about the environment based on deductive reasoning, empirical observation and experimentation'. This argument is consistent with

Innes (1998) who also summarizes a view of knowledge in Systems Theories and Rational Theories of Planning as follows;<sup>13</sup>

The information (assumed by researchers and practitioners) may include such material as surveys, identification and comparisons of alternative policies in terms of costs and benefits, feasibility studies, predictions, and forecasts; it may include reports and studies based on calculation and scientifically validated knowledge. What both researchers and practitioners have been accustomed to label 'information' (knowledge) has usually been quantitative framed in terms of costs or other easily countable units.

### ***Characteristics of knowledge in Systems and Rational Theories of Planning***

From the preceding discussion, one can deduce certain assumptions concerning the relationship between both theories and knowledge (information). Knowledge in the theories is acquired only through rigorous methods of natural science (such as various statistical methods, quantitative algorithms and theories of optimal control). Therefore knowledge utilized in these theories is considered more likely to be objective, universal knowledge and is characterized as deductive, calculable, and therefore *explicit*, rather than figurative, incalculable or implicit. There has also been faith in scientific and technical professionals (planners) who have privileged access to objective and scientific knowledge (Friedmann, 1987), considering that such knowledge leads to greater efficiency and effectiveness in the operation of urban planning. Finally, an organization such as an urban planning agent is regarded as an aggregation of individuals (professionals) with scientific knowledge, who act in rational ways, rather than a socially organized entity.

### ***Applying the theories to the integrated framework of the TEAM structure and the SECI model***

When applying the concept of knowledge utilized in Systems Theories and Rational Theories of Planning to the integrated framework of the TEAM structure and Nonaka's SECI model (see Figure 2-11), it is apparent that the concept of knowledge utilized in

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<sup>13</sup> Although Innes (1998) uses the term 'information', in order to keep this thesis coherent here the term 'knowledge' is used instead.

the theories of planning falls into the quadrant of the individual dimension of *systemic knowledge* expressed in Nonaka's terms (see Figure 3-6), which is created through the combination mode of knowledge conversion and *embrained knowledge* as expressed in Lam's terms (see Figure 4-2 and also see section 3.3.2). This is because this knowledge has to take *explicit* form, has a horizon to *identify* it with others due to the regulation of the search for knowledge through rigorous method, but lies on the individual reasoning ability.

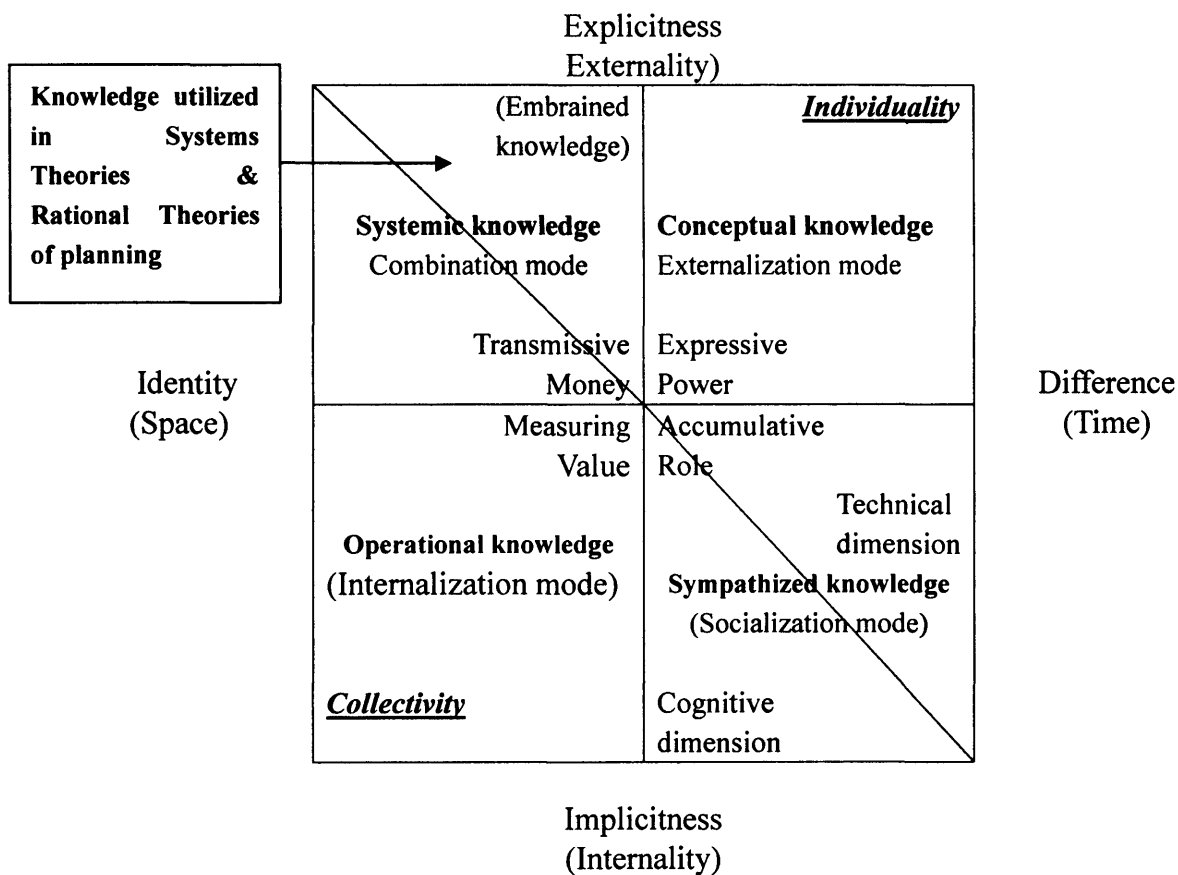


Figure4-2: Relationship between knowledge in Systems Theories and Rational Theories of Planning and knowledge in Nonaka's SECI model (Source: Author)

### ***Limitations of the views of knowledge in Systems and Rational Theories of Planning***

Seen from Figure 4-2, there are substantial limitations to the view of knowledge employed in Systems Theories and Rational Theories of (urban) Planning. Firstly, objective knowledge cannot deal with implicit (tacit) knowledge such as citizens' feelings and experiences. Also, reliance on rational individuals with objective knowledge also cannot assume knowledge acquired through dialogue or mutual

interaction among citizens and city planners. These types of knowledge are related to *sympathized knowledge* in Nonaka's terms (which is created through the socialization mode of knowledge conversion). Secondly, because of the rigorousness (or inflexibility) of the acquisition process of objective knowledge, Systems Theories and Rational Theories of Planning cannot be adjusted to a more flexible approach in context-specific situations, including the uncertain and changing environment, under which *conceptual knowledge* (such as insights and intuitions) in Nonaka's terms can be effectively utilized (through the externalization mode of knowledge conversion). Thirdly, an organization cannot develop a newly created comprehensive knowledge base, adjusting to the changing social situation, which is related to *operational knowledge* and created through all four modes of knowledge conversion.

### ***The cause of urban problems***

In short, because of their narrow scopes of knowledge, Systems Theories and Rational Theories of Planning cannot incorporate a number of important types of knowledge into their framework and result in losing the connection to empirical work. In relation to the main theme of this research, it can be argued that the prominence and application of those rigid but insufficient theories in the 1960s in the UK caused dissatisfaction with main stream urban planning, expansion of late twentieth century urban problems and the emergence of urban regeneration as a research field.

Furthermore, there are a number of academics who have identified the limitations in the use of knowledge in Systems Theories and Rational Theories of Planning. In the next-sub section, the arguments on knowledge activities as presented by critics of the theories are investigated in relation to Nonaka's SECI model. This is done in order to examine the applicability of Nonaka's theory to the urban planning context and ultimately to the urban regeneration context.

### **4.3.2 Knowledge utilized in critiques of Rational Theories of Planning**

#### ***Friedmann's critique of Systems and Rational Theories of Planning***

Nonaka's pluralist view of knowledge is to some extent supported by certain academics of urban planning in the West, who identify the limitations of the use of knowledge in Systems Theories and Rational Theories of Planning (see e.g. Friedmann, 1987; Weaver et al., 1989; Schön, 1995; Sandercock, 1998; Allmendinger, 2002; Pennington, 2002). For example, Friedmann (1987, p311) states "Talk to planners, and nine of ten will describe their work as a 'failure' or of 'little use'" and assumes that the failure of planners' work is mainly rooted in the epistemology, and claims that the method based on (scientific) professional knowledge cannot guide practitioners who wish to gain a better understanding of the practical uses and limits of research-based knowledge. Therefore, he argues the need for an alternative epistemology which has linkages between scientific (technical) knowledge and actions in the public domain.

#### ***Schön's epistemology***

Friedmann's work is consistent with Schön (1995) who also identifies the problems and limitations of a conventional epistemology, that is, a view of the use of knowledge, taken by theorists of System Theories and Rational Theories of Planning. According to Schön, both theories are based on the model of *Technical Rationality*, which is grounded in the idea of *instrumental (technical) problem-solving* made rigorous by the application of scientific theory and designed by professionals (e.g. city planners) with professional knowledge. Schön argues that in the context of urban planning, an instrumental problem-solving approach leads to problematic consequences or unintended negative effects such as deteriorating cities, increased prevalence of poverty and the pollution of the environment. This argument supports the analysis in the previous sub-section; namely, the argument on the relationship between the application of Systems Theories and Rational Theories of Planning and the emergence of urban problems, which lead to the emergence of urban regeneration initiatives.

### ***The importance of synthetic skills***

Schön (1995) considered the consequences or effects of urban problems to be deeply rooted in the inadequacy of professional knowledge because such knowledge cannot be adjusted to the changing character of situations or the turbulent environment where the complexity, uncertainty, instability, uniqueness, and value conflicts prevail in the context of increasing globalization. In other words, rationalists seek to remove complexity, instability, and uncertainty from their theoretical assumptions by only paying attention to knowledge acquired through rigorous scientific method. This assertion is in line with Lam's *Professional Bureaucracy* (see section 3.3.2). According to Lam (2000), in a *Professional Bureaucracy*, professional experts tend to interpret specific situations within the restricted boundary of professional or established categories. Schön (1995) concludes that in turbulent environments, it is necessary for planners to acquire not only analytical techniques based on rational thinking, but also more active, *synthetic skills* which combine analytical techniques and practical knowledge (or professional artistry). This enables planners to design a desirable future and invent ways of bringing it about within the context of an uncertain world.<sup>14</sup>

### ***Friedmann and Schön's knowledge within Nonaka's theoretical framework***

Figure 4-3 incorporates Friedmann and Schön's arguments into the integrative framework of the TEAM linguistic structure and Nonaka's SECI model. This suggests that Friedmann and Schön's perspectives on the linkages (or synthetic skills) between scientific (technical) and practical knowledge (actions) corresponds to Nonaka's theory of the individual dimension of systemic knowledge and the (individual) technical dimension of sympathized knowledge (or embodied knowledge in Blackler's and Lam's terms). In this sense, Friedmann and Schön's insights can be incorporated into Nonaka's theoretical framework.

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<sup>14</sup> Based on this premise, he introduces some practical methods of knowledge acquisition, such as knowing-in-action and knowing-on-action. See Schön (1995) for more details.

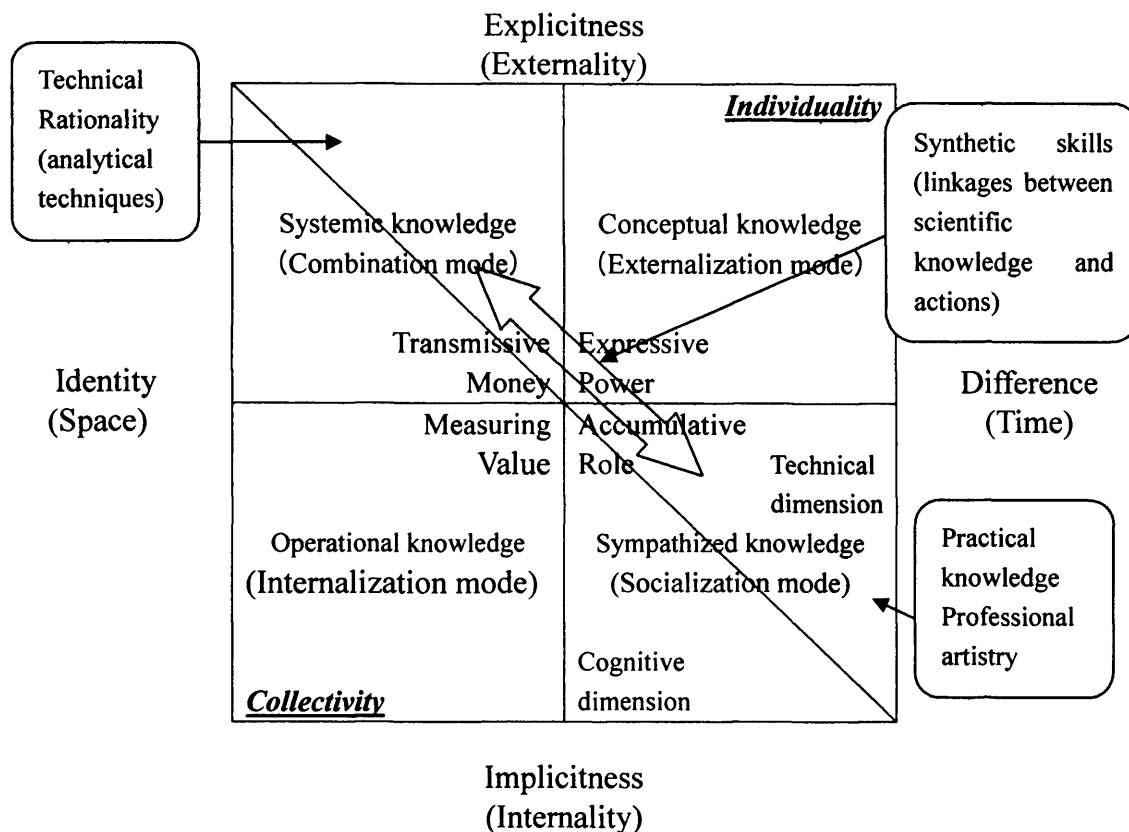


Figure4-3: Knowledge presented by Friedmann and Schön within Nonaka's framework (Source: Author)

### ***Limitations of the scope of Friedmann and Schön's knowledge***

Figure 4-3 also indicates the limitations of the scope of Friedmann and Schön's knowledge. Firstly, although Schön argues that *synthetic skills* enable planners to design and achieve a desirable future, seen from Nonaka's theory, without the imaginative, figurative dimension of knowledge, which is related to the linguistic function of *expressing* meaning, future-oriented plans cannot be created. That is to say, Schön fails to adequately acknowledge the importance of the externalization mode of knowledge conversion in Nonaka's terms. Secondly, Friedmann and Schön fail to adequately acknowledge the ontological, that is, collective dimension of knowledge. In other words, although they recognize the importance of individuals' (planners') reflective activities, with which they assume the context-specific situation is dealt with in plan-making, they fail to acknowledge the significance of interaction among individuals. According to Nonaka's theory, although organizational knowledge-creation starts with individual,



(tacit) knowledge, this knowledge is *amplified* and *crystallized* through interaction among members in an organization. This suggests that Nonaka may provide a more comprehensive framework of planning activities associated with knowledge, which offers an ontologically pluralistic perspective and incorporates Friedmann and Schön's epistemologically pluralistic perspective into his framework.

### ***Weaver et al. 's integrated perspective of knowledge***

Weaver et al. (1989) also point out the limited perspective of knowledge utilized in conventional theory (referred to as Systems Theories and Rational Theories of Planning). They propound three types of knowledge of *positive (scientific)*, (tacit) *individual* and *sociological knowledge* and advocate the need of a perspective that integrates these three types of knowledge in the dimension of planning practices. Whilst Weaver et al.'s interest is consistent with Nonaka's theory in terms of the pluralistic epistemology (i.e. tacit and explicit knowledge) and the pluralistic ontology (i.e. the individual and the collective), it remains abstract and does not give any practical guidance to approach knowing activities in urban planning.

### ***Sandercock's various ways of knowing***

More recently, Sandercock's (1998) explorations into knowledge utilized in urban planning places it in wider contexts and starts with the investigation of knowledge activities from the time of the ancient Greeks, reviewing the fields of philosophy, economics, sociology and urban planning. The author argues that in the West *the epistemology of the Enlightenment* based on objective knowledge, which has been the most dominant since the seventeenth century, has moulded and underpinned the history of planning thought and that a conventional view of urban planning regards a city as an entity controlled through rational planning activities. This is obviously in line with the orthodox understanding of Systems Theories and Rational Theories of Planning. Drawing on Perloff's (1957) account, Sandercock claims that rationalist planning denies a rich variety of ways of knowing and seeing by taking a particular view of knowledge that privileges technical rationality and instrumental problem-solving ability and

introduces various ways of knowing the following; (1) *knowing through dialogue*, (2) *knowing from experience*, (3) *learning from local knowledge*, (4) *learning to read symbolic and non-verbal evidence* (5) *learning through contemplative or appreciative knowledge*. These types of knowledge are incorporated into Nonaka's theoretical framework(see Figure 4-4).

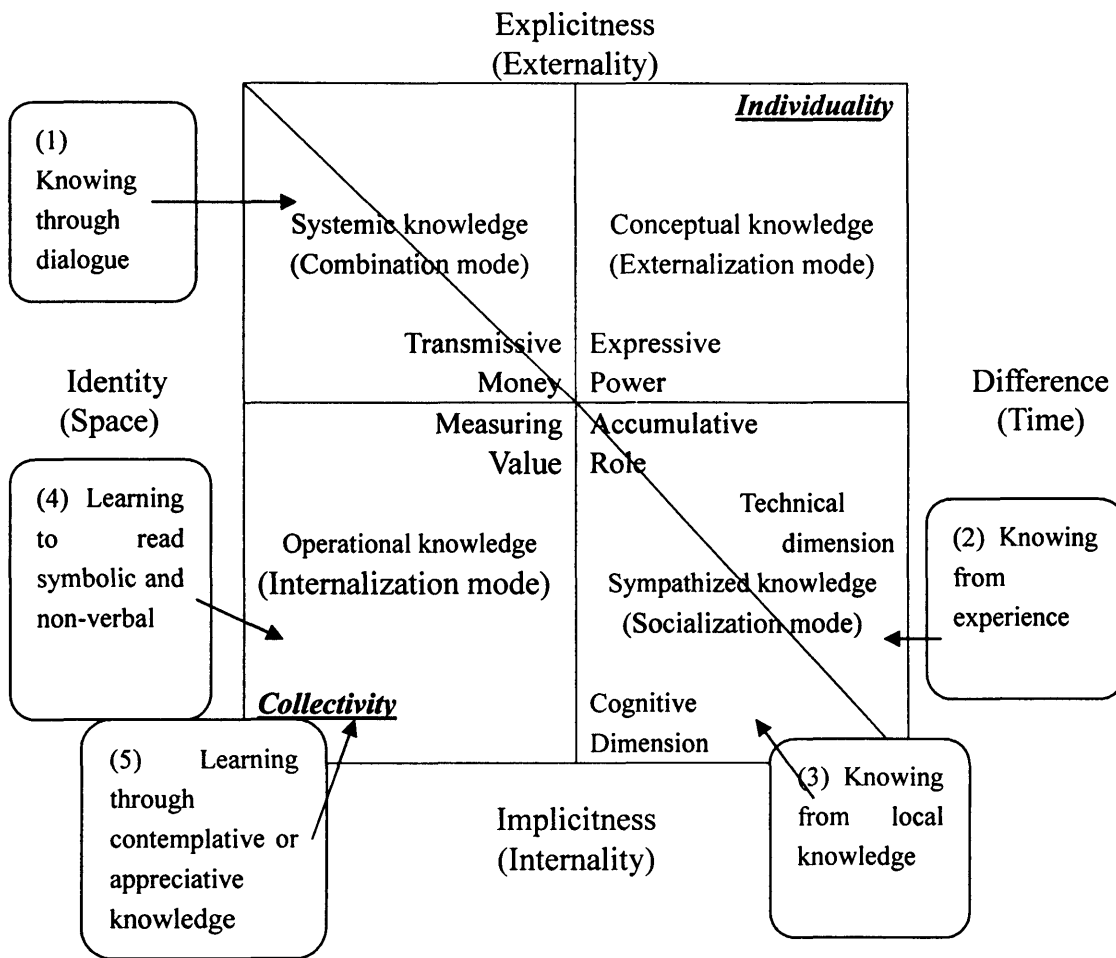


Figure4-4: Knowledge propounded by Sandercock within Nonaka's framework (Source: Author)

### ***Limitations of Sandercock's approach***

Although Sandercock succeeds in incorporating tacit (implicit or practical) dimensions of knowledge into an urban planning context (see Figure 4-4) in much same way as Nonaka did in a management context, due to over-criticism of Systems Theories and Rational Theories of Planning, the author tends to ignore the importance not only of the

rational (scientific) dimension, but also that of the individual (explicit) dimension of knowledge. From the perspective of Nonaka's theory, both explicit and tacit knowledge, and the individual and collective, play significant but different roles in an organization. In this sense, although Sandercock tends to present an alternative to the rational view of knowledge, her introduction of various types of knowledge seems ad hoc and places too much emphasis on the tacit and collective dimension of knowledge. She also fails to provide a theoretical framework in which a rich variety of ways of knowing are mutually related.

#### **4.3.3 Conclusions**

##### ***The applicability of Nonaka's theory***

The knowledge utilized in Systems Theories and Rational Theories of Planning covers (or at least over-emphasises) only one aspect of the four types of knowledge<sup>15</sup>, that is, (the individual dimension of) *systemic knowledge* in Nonaka's terms. What these theories fail to acknowledge is the importance of the other types of knowledge which are not related to rationality (such as *sympathized*, *conceptual* and *operational knowledge*) in planning activities. It can therefore be argued that their application to urban planning practice did not address urban problems and generated urban regeneration initiatives and the popularity of collaborative approaches based on public-private partnerships to urban regeneration. The preceding analysis also suggested that knowledge utilized in Nonaka's theory covers not only knowledge utilized in Systems Theories and Rational Theories of Planning, but also the other types of knowledge presented by critics of these theories. Given this, it can be concluded that Nonaka's theory is more applicable to the urban planning context in its usage of knowledge.

In order to more closely examine the applicability of Nonaka's theory to the urban planning context and ultimately to the urban regeneration context in greater depth, the next two sections investigate the two types of working models of Rational Theories of

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<sup>15</sup> If the integrated framework developed in Figure 2-11 is applied, it becomes six types of knowledge

Planning presented by Faludi; namely, (1) an *organizational structure model of planning agencies* and (2) a three-phase *operational model of planning agencies*, in terms of Nonaka's theory.

#### **4.4 Examining Faludi's organizational structure model in terms of Nonaka's theory**

##### **4.4.1 Introducing Faludi's organizational structure model**

The fundamental premise of Nonaka's theory is that knowledge-creation makes a company innovative and therefore competitive, and continuous knowledge-creation makes it sustainable. Nonaka also assumes that there are the five conditions which facilitate organizational knowledge creation (see section 2.7). By applying this premise to the urban planning context in general and urban regeneration in particular, it can be said that continuous knowledge-creation makes a city innovative, competitive and sustainable.<sup>16</sup> This section therefore investigates Faludi's organizational structure model of planning agencies from the perspective of Nonaka's *five enabling conditions*. However, before this can be done, it is necessary to outline Faludi's model.

##### ***Faludi's rational theory of planning***

Faludi (1973, 1986, 1987) is a leading planning theorist, who has provided one of the most developed expositions of a Rational (process) Theory of Planning (see Healey et al., 1982; Taylor, 1998; Allmendinger, 2002). This theory is strongly influenced by the development of cybernetics and operation research and considers the nature of human problem-solving and decision-making in planning agencies, using the analogy between the human mind and a planning agency and developed a model of an organizational structure of planning agencies (see Faludi, 1973, Chapter 4). This model is based on the idea of a *learning system*, incorporating controlled-feedback systems. In differentiating it from a simple feedback system (such as the thermostat), Faludi argues that a learning system is a system that can change its goals as new information is extracted from the

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<sup>16</sup> Taking into account the fact that the emergence of the inner city problem means the loss of urban competitiveness, it seems to become the central issue to think about knowledge creation even in the urban regeneration as well as urban planning context.

environment in which it operates. In this sense, learning means the ability to adapt goals to changing environmental conditions. By using this model, Faludi pays considerable attention to ‘information processing’ which is concerned with organizational efficiency, rather than effectiveness. In this sense, he is in line with Simon’s organization theory (see section 2.2). Moreover, it is also (perhaps wrongly) assumed that the external environment can be ‘controlled’ through this learning system, while changing its goals. According to Faludi (1973), the components of a leaning system are a *Receptor*, a *Memory*, a *Selector*, and an *Effector*. Each has a different function and is connected as a ‘system’.

#### ***Applying the learning system to local planning authorities***

Faludi applies the learning system to local planning authorities (see Figure 4-5). In this way, a *survey unit (receptor)* is responsible for research aspects of planning by gathering information from the external environment. Based on the information acquired (from the survey unit) and on the guidelines received from ‘the planning committee’ (*selector*), the *development plan section (memory)* sets its own goals. Accordingly, the *development control section (effector)*, based on the development plan produced, works on the external environment.

Figure4-5: Organizational structure model of planning agencies as applied to local planning authorities (Source: Faludi, 1973, p78)

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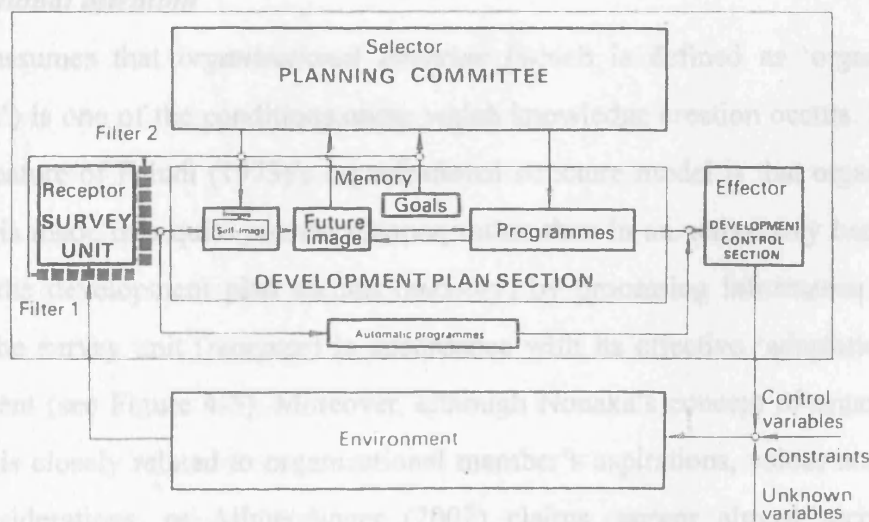


Figure4-5: Organizational structure model of planning agencies as applied to local planning authorities (Source: Faludi, 1973, p78)

One of the main features of the organization structure in Faludi's model of public-sector planning agencies is its division of labour (in the case of planning this represents local government planners) in accordance with their functions. In other words, the division of labour simplifies each action by stipulating the scope and character of work undertaken in each planning agency. This would suggest that the system could avoid serious problems of *information-overload* resulting from a concentration of information-processing and decision-making at a certain place, for example, the top. This also suggests that the system minimizes interaction between different sections by the division of function. Seen from the perspective of Nonaka's theory, however, the system as proposed by Faludi seems problematic in terms of the capability of knowledge creation. The following sub-section will identify the limitations of the organizational structure of Faludi's model of planning agencies in relation to the five enabling conditions of (1) *organizational intention*, (2) *individual and group autonomy*, (3) *fluctuation/creative chaos* (4) *information redundancy* (5) *requisite variety*, which Nonaka assumes facilitate the process of knowledge creation in an organization.

#### **4.4.2 Examining Faludi's organizational structure model in terms of Nonaka's five enabling conditions**

##### ***Organizational intention***

Nonaka assumes that *organizational intention* (which is defined as 'organizational aspiration') is one of the conditions under which knowledge creation occurs. However, the key feature of Faludi (1973)'s organizational structure model is that organizational intention is made in a quite *passive* manner, rather than in an active way because it is made in the development plan section (*memory*) by processing information acquired through the survey unit (*receptor*) in accordance with its effective 'adaptation' to the environment (see Figure 4-5). Moreover, although Nonaka's concept of organizational intention is closely related to organizational member's aspirations, values and visions, such considerations, as Allmendinger (2002) claims, appear almost secondary in Faludi's model because the rational theory of planning is concerned chiefly with technical means of achieving goals rather than (value-laden) ends of deciding where to

go. When taking the points into consideration, the organizational intention of Faludi's model is quite weak. Therefore, it lacks one of the organizational conditions which Nonaka assumes facilitate the processes of knowledge creation in an organization; namely, organizational intention.

### ***Individual and group autonomy***

Although Nonaka (1995) claims that *individual autonomy* and *Organizational autonomy* (based on a 'cross functional' or a 'self-organizing' team) facilitate organizational knowledge creation (see section 2.7), Faludi's (1973) view of a planning organization where responsibilities embrace public sector planning, contrasts sharply with those of Nonaka. In Faludi's model, planning is viewed chiefly as an exercise of *control* and a cross-functional section (or team) is not assumed, at least, it is not regarded as the driving force of an organization. Such a view of an organization inevitably reduces both individual and organizational autonomies by suffocating individual motivations and initiatives for knowledge creation. This basic view clearly reflects the low level of importance placed on autonomy in Faludi's model and accordingly the author fails to acknowledge the importance of autonomy in planning agencies.

### ***Fluctuation/ creative chaos***

Nonaka argues that *fluctuation* and *creative chaos* provides an organization with opportunities of creating new knowledge, giving a breakdown of routines, habit or cognitive framework. On the other hand, Faludi (1973) views these features as unknown and potentially high risk variables and is fearful that under conditions where unknown variables dominate, the subject (i.e. planning agencies) drifts and fails to adapt to the external environment. This suggests that although Faludi incorporates uncertainty, fluctuation and chaos in his model, he regards them as negative factors. Moreover, it also suggests that the author's attitude to these factors is somewhat passive and when seen from Nonaka's perspective, what Faludi fails to acknowledge by adapting this stance is the positive attributes of fluctuation and chaos that can lead an organization to creative activities and knowledge creation.



### ***Information redundancy***

Based on an assumption that planning agencies should 'process' information in the most effective and rational manners, Faludi (1973) assumes that any unnecessary acquisition of information beyond immediate operational requirements among organizational members becomes a possible cause of information-overload. From this point of view, it is apparent that Faludi does not pay sufficient attention to the importance and significance of the *redundancy of information* in an organization, which is one of organizational conditions which Nonaka assumes for knowledge creation occur. Seen from Nonaka's perspective, information redundancy or overlapping information in an organization is an acceptable cost to facilitate knowledge creation and it may give a chance to create new knowledge by sharing 'excessive' information, more precisely tacit knowledge and providing the foundation of knowledge creation. Given this, Faludi fails to acknowledge the importance of sharing redundant information among members in an organization as a condition for organizational knowledge creation.

### ***Requisite variety***

In Faludi's model, *requisite variety* also has a low priority. This is because the specialization model of labour, which restricts interaction among different sections, results in the ignorance of useful information that can be received and processed in other planning sections.

Acknowledging this, Faludi (see 1973, Chapter11), in order for a planning section to deal with various types of information from various sources, develops and adopts a *multi-planning agency model*. A multi-planning agency can be 'any number of planning agencies with an overlapping action space attempting to continuously co-ordinate what they are doing with a cumulative rationalizing effect' (1973, p207). In other words, by co-ordinating specialized planning sections in an efficient and organized way, fragmented sections are presumed to be able to share information. In order to implement this, Faludi introduces the concept of a *strategic planning agency*, which is the central

allocator of resources and tasks which set the framework within which other planning agencies operate. According to Faludi, a strategic planning agency needs to be given some power to enable them to control the actions of other agencies. In these terms, the model synthesizes different agencies and addresses irreconcilable issues between agencies. It can however be said that Faludi's model of a strategic planning agency is concerned chiefly with 'co-ordination', not knowledge creation, through which different agencies share interest because the model does not promote free and direct exchange of information between planning agencies in a flexible manner due to its hierarchical and rigid structure.

### **Conclusions**

Although Nonaka assumes that there are five organizational conditions which facilitate knowledge creation in an organization, Faludi does not appear to take any of these organizational conditions seriously or incorporate them into his model (see Table 4-1). This is because he places too much emphasis on *rational* aspects of decision-making in planning agencies, which minimizes the need for information distribution among its units in an attempt to reduce the information-load on them, the result of which is ignorance or oppression of the creative activity of planning agents.

Table4-1: Relationship between Nonaka's five organizational conditions and Faludi's organizational structure model of planning agencies

<b>Nonaka's five conditions for knowledge creation</b>	<b>Faludi's organizational structure model of planning agencies and its relationships with Nonaka's five conditions</b>
Organizational intention	Low (its effective adaptation to the environment)
Individual and group autonomy	Low
Fluctuation / Creative chaos	Assumed (but seen as a negative factor)
Information redundancy	Low (efficient system)
Requisite variety	Low (introduced multi-planning agencies though)

If the expanded assumption from Nonaka's theory that continuous knowledge creation makes a city (and an organization) innovative, competitive and sustainable is right and

his above five conditions are applicable to the context of urban planning, then it can be concluded that Faludi's organizational structure model of planning agencies has serious limitations in its organizational structure.

#### 4.5 Examining Faludi's three-phase operational model<sup>17</sup> in terms of Nonaka's theory

Faludi (1973) introduces a three-phase operational model of planning agencies, which is shown in Figure 4-6.

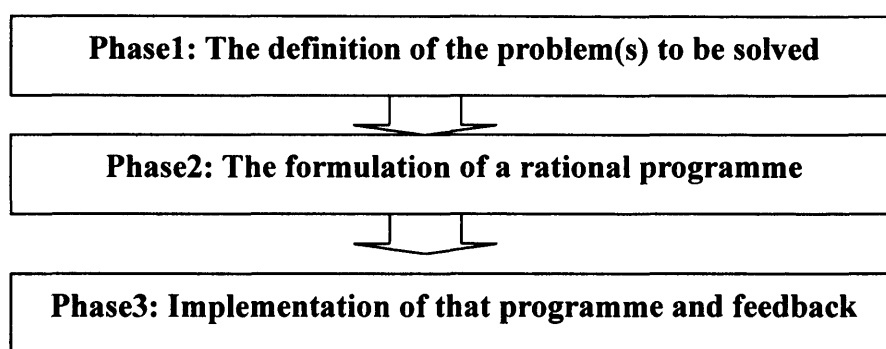


Figure4-6: Faludi's three-phase operational model of planning agencies (Source: Faludi, 1973)

In addition, Table 4-2 shows the comparison between Faludi's three-phase operational model and Nonaka's five-phase model of organizational knowledge creation. The Phase 1 of *the definition of a problem* in Faludi's model closely corresponds to the two phases of Nonaka's five-phase model; namely, (1) *sharing tacit knowledge* and (2) *creating concepts*. Faludi's phase 2 of *the formulation of a rational programme* is approximately related to (3) *justifying concepts* and (4) *building an archetype* in Nonaka's model. Faludi's Phase 3 of *implementation of that programme and feedback* correspond to (5) *cross-levelling knowledge*.

<sup>17</sup> Much literature associated with urban planning argues the perspective of the process in Rational Theory of Planning (see e.g. Taylor, 1998, p67; Faludi, 1973, Chapter5; Friedman, 1987, Chapter4).

Table4-2: A comparison between Faludi's three-phase operational model of planning agencies and Nonaka's five-phase model of organizational knowledge creation (Source: Author)

<b>Faludi's three phases of operations' model of planning agencies</b>	<b>Nonaka's Five-phase model of organizational knowledge creation</b>
<b>Phase1:</b> Definition of the problems (Definition of goals)	<b>Phase1:</b> Sharing tacit knowledge
<b>Phase2:</b> The formulation of a rational programme	<b>Phase2:</b> Creating concepts
<b>Phase3:</b> Implementation of that programme and feedback	<b>Phase3:</b> Justifying concepts
	<b>Phase4:</b> Building an archetype
	<b>Phase5:</b> Cross-leveling Knowledge

In order to examine the applicability of Nonaka's theory to urban planning and ultimately to urban regeneration, here the three approaches are set up. Firstly, Faludi's Phase 1 of *problem-definition* is examined in terms of Nonaka's five-phase model of organizational knowledge creation (phase 1 and 2) (section 4.5.1). Secondly, Faludi's Phase 2 of *rational programme-formulation* is examined in terms of 'information-problems' (section 4.5.2). Thirdly, Faludi's *planning strategies* are examined in terms of Nonaka's SECI model (section 4.5.3).

#### **4.5.1 Examining Phase 1 of Faludi's operational model in terms of Nonaka's five-phase model**

##### ***Faludi's definition of a problem***

*Problem-definition* is important to Faludi's rational (process) theory of planning and Faludi's operational model of planning agencies starts with it (see Figure 4-6). Faludi (1973) defines a problem as a '*state of tension between the ends pursued by a subject and his image of the environment*'<sup>18</sup> (see Figure 4-7).

<sup>18</sup> As Taylor (1998) points out, it is impossible to effectively carry out a survey about current situations (or problem definitions) without any purpose or reason (goals). Therefore, an understanding of current situations and goal-settings needs to be considered 'simultaneously'.

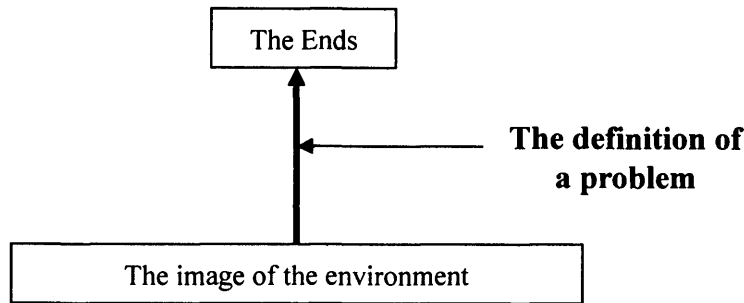


Figure4-7: Diagram of Faludi's problem-definition (Source: Author)

As mentioned earlier, the definition of a problem in Faludi's model approximately corresponds to the two phases of Nonaka's five-phase model of (1) sharing tacit knowledge and (2) creating concepts (see Table 4-2). *Sharing tacit knowledge* in Nonaka's terms approximately equates to *fixing the image of environment* in Faludi's terms, while *creating concepts* is referred to as *fixing the ends*. There are, however, some serious limitations to Faludi's definition of a problem from the perspective of Nonaka's theory.

#### ***The first limitation: Monist epistemology***

The first is, again, concerned with *epistemology* (i.e. types of knowledge). Faludi's definition of 'a problem' is based on the typical western epistemology. Faludi regards information (data) as a resource to formulate 'problems' as *objective knowledge*, which is already contested by this thesis (see section 4.3), which corresponds only to Nonaka's concept of the individual dimension of *systemic knowledge* or Lam's *embrained knowledge*. This suggests that Faludi, as numerous theorists point out (see e.g. Relph, 1976; Friedmann, 1987; Schön, 1995; Healey, 1997), fails to acknowledge the importance of other forms of knowledge (such as *experience-based* and *practical knowledge*) as a recourse for fixing the image of the environment (the current situation) of a city,<sup>19</sup> which Nonaka incorporated into his theory, using the terms *sympathized (tacit) knowledge*.

<sup>19</sup> Concerning this point, see arguments presented by Friedmann (1987) and Schön (1995) in section 4.3.2. Healey also argues that in the rational planning process, technical teams serving representative politicians work in a controlled way through the collection and manipulation of data and give no attention to the way the 'experience' of team members is affected (Healey, 1997, p253).

### ***Citizen's tacit knowledge***

Such criticisms and limitations of epistemology in problem-definition in general and in fixing the image of the environment of a city in particular lead one to point out the importance of *citizen's experiences* and *feelings* as a knowledge source. Pennington (2002, p188) argues that ignorance of citizens' tacit knowledge 'leads not only to poor planning outcomes, but also to a profound sense of citizens' disempowerment leading to growing distrust of the political institutions of the modern state. This implies that a problem-definition in a rational planning approach that does not sufficiently take into account *sympathized knowledge* (such as citizen's experiences, beliefs, perceptions, values and emotions) results in political conflicts with planning agencies and citizens, which decreases the performance of planning. It can be argued that in order to overcome the limitations of the rational theory of planning, Communicative Planning in the urban planning context and collaborative approaches based on public-private partnerships in the urban regeneration context may be presented. Nonaka's five-phase model can supplement the epistemological limitations of Faludi's model by starting sharing tacit knowledge in the first phase.

### ***The second limitation: Monist ontology***

The second limitation identified on problem-definition in Faludi's model is concerned with *ontology* (i.e. the locus of knowledge). Faludi, as already mentioned, regards an organization only as an aggregation of rational human beings, applying a model of the 'individual' human mind directly to the organization. In this sense, Faludi takes the position of *methodological individualism* and this is problematic from perspectives of the TEAM linguistic framework contested by this thesis (see section 1.5) because it ignores the *ontological dualistic structure* (of Parole and Langue), paying attention only to the individual (Parole) dimension.<sup>20</sup> In other words, because of too much emphasis on the rational individual, Faludi's model fails to acknowledge the importance of

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<sup>20</sup> As argues earlier, Nishibe (1996) as well as Saussure (1983) differentiate the 'Langue' (language), which is closely related to collectivity, and 'Parole' (speech), which is associated with the individuality, see Chapter1 for more details.

socially (organizationally) acquired, shared, constructed and embedded knowledge, which also has an effect on individual thinking. The limitation of this becomes apparent when Faludi's assumption is seen from the perspective of Nonaka's theory. Nonaka assumes the process of goal (end)-setting (i.e. problem-defining) is socially constructed, regarding it as a knowledge-creating activity. By acknowledging the dualism of the individual and collective dimensions, Nonaka assumes that knowledge is amplified and crystallized at the collective level (i.e. at group, organizational and inter-organizational levels). At the same time, particular individuals play a crucial role in this phase as knowledge-‘creating’ subjects. Nonaka's assumption that problem-defining is socially constructed is also consistent with theories of Communicative Planning (see Healey, 1992a; 1997; Innes, 1998), and this will be analyzed in the next section. According to supporters of Communicative Planning, problem-definition is undertaken through dialogue within and between citizens or stakeholders.

#### ***The third limitation: The passive nature of the goal-formation***

The third limitation of Faludi's model in the problem-defining phase of the planning process is concerned with its approach to *the formulation of goals (ends)* (see Figure 4-7). When dealing with goal-formation in this phase, Faludi always keeps the example he gives simple. The author, always, for example, uses the analogy of a thermostat that is only fixed to one temperature. However, unlike the settings of a thermostat, the goals of urban planning are dynamic and have complex dimensions, including physical, economic, social, political and cultural aspects. Although Faludi (1973) acknowledges the difficulty of formulating goals, he does not provide any actual guidance of how they are arrived at. This particular point is also criticized by Taylor (1998) who argues that little concern is given to goal-formation in rational process planning because goal-formulation cannot be conducted in a ‘rationalistic’ manner.

#### ***The importance of ‘the discovery of problems’***

This is related to the *passive* nature of Rational (process) Theories of Planning. Faludi's model is *passive* to the environment in which it operates because goals are constructed

on the basis of the environmental information (of a city) available at a certain point in time and context. The definition of goals in Faludi's model parallels the phase of *creating concepts* in Nonaka's terms (see Table 4-2), but Nonaka's view is in sharp contrast to that of Faludi (see Figure 4-8).

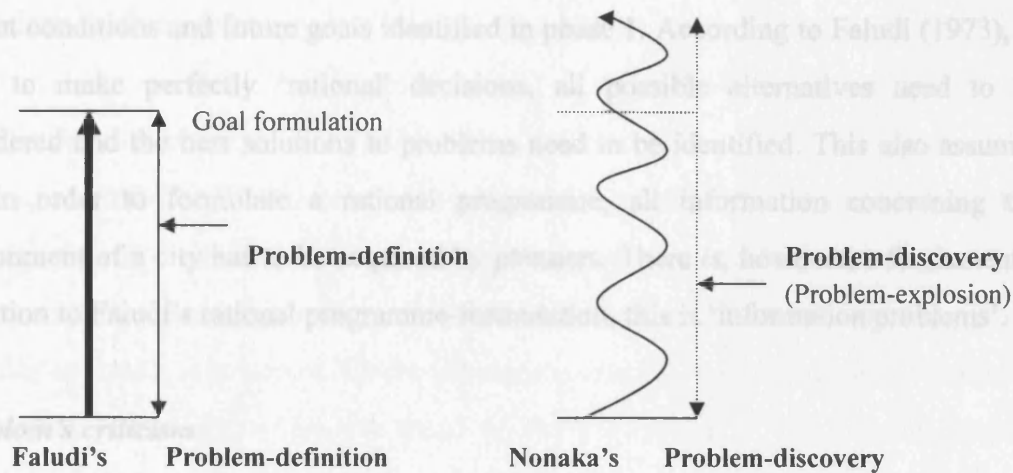


Figure4-8: Comparison between Faludi's Problem-definition and Nonaka's problem-discovery (Source: Author)

Nonaka assumes goals or problems should be *discovered* and *explored* through experience, commitment and dialogue between people because it ultimately leads to the advancement of outcomes. Nonaka also assumes that *problem-discovery* is a self-transcending (or self-developing) process at all levels of individuals, groups and organizations. This suggests that Nonaka's approach has a strong perspective of enhancing goals and expanding the scope of activities in an active manner, which is lacking in the model proposed by Faludi.

In sum, Faludi's problem-definition phase is problematic in terms of its monist epistemology and ontology and its passive attitude to fixing goals.

#### 4.5.2 Examining phase 2 of Faludi's rational programme-formulation in terms of information-problems

Following the definition of the problems a city faces, Faludi's operational model of planning agencies assumes phase 2 of *the rational programme formulation* (see Figure



4-6). Faludi (1973, p89) defines the formulation of a programme as *a set of intentions concerning the type and intensity and timing of actions that aim at manipulating the control variables of a problem situation so as to achieve a set of objectives* (italic by Faludi). This definition of programme formulation attempts to bridge the gap between present conditions and future goals identified in phase 1. According to Faludi (1973), in order to make perfectly 'rational' decisions, all possible alternatives need to be considered and the best solutions to problems need to be identified. This also assumes that in order to formulate a rational programme, all information concerning the environment of a city has to be acquired by planners. There is, however, a fundamental limitation to Faludi's rational programme-formulation, this is 'information problems'.

### ***Lindblom's criticism***

Lindblom (1959) argues that the assumption of 'comprehensive rationality', that planners can acquire all information for formulating the best programme as employed by Rational Theories of Planning, is unrealistic as the intellectual capacities of most people are more limited in the amount of 'information' which can be acquired and processed than is assumed by many theorists of Rational Planning.<sup>21</sup>

### ***Hayek's criticism***

Lindblom's criticism of limited information acquisition and absorption in formulating a rational programme is consistent with the views of Hayek (1945) who also provides an insight into the capacity to absorb information about problems.<sup>22</sup> According to Hayek, although the 'economic calculus' (technical calculation), based on a centrally controlled planning economy, using 'data' (or scientific knowledge), is an important step towards arriving at a response to the economic problems of a society, this alone cannot provide an answer. This is because this process cannot by its very nature deal with more than one important area of knowledge, namely, *local knowledge* (the knowledge of the

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<sup>21</sup> Lindblom (1959) instead advocates 'disjoined incrementalism' as the real thesis for planning, claiming that policy makers, including planners, cannot, do not and even should not 'think big' (see Allmendinger, 2002). On this basis, planning can only solve relatively simple problems through incremental improvements.

<sup>22</sup> Here Hayek's interest, however, is in the demonstration of the superiority of the market economy over a centrally controlled planning economy.

particular circumstances of time and place), which cannot be acquired through rational activities alone. Hayek (1945) concludes that ‘the ultimate decision must be left to the people who are familiar with these circumstances (i.e. those who are intimately knowledgeable about the relevant changes and of the resources immediately available to support these changes).

### ***Pennington’s criticism***

Pennington (2000 & 2002), drawing on Hayek’s argument, also claims in the urban planning context that, although some useful information (such as historical data on land-use trends, prices and population patterns) may be made available through the rational planning approach, it is impossible for planners to find the best programmes for solving the problems of a city, which are based on the assumption of the rational planning approach and this is simply because the intelligence employed in programme formulation is often not that of basic facts that can be quantified, but rather is based on *local knowledge* aimed at by subjective judgment and tacit insights. These arguments are consistent with Nonaka’s theory, which incorporates (local) tacit knowledge about a context-specific situation into his five-phase model. This implies that there is a possibility that Nonaka’s theory could be a model which overcomes the information problems associated with programme formulation in Faludi’s model.

### **4.5.3 Examining Faludi’s planning strategies in terms of Nonaka’s SECI model**

#### ***Planning strategies to overcome information problems***

Although the main emphasis of Faludi is on rationality and on the ability of human beings to acquire and process information, it is not appropriate to criticize Faludi’s model only in terms of the limitations on human information-handling capacity because Faludi himself (1973) acknowledges that planners’ information-handling capacity is inherently limited in that they cannot obtain the detailed knowledge required for the formulation (and implementation) of rational programmes. As a way of addressing these limitations, Faludi (1973) introduces the concept of *planning strategies* for making rational decisions where relevant information cannot be adequately acquired or

absorbed. In this, Faludi defines planning strategies as *approaches which enable a subject to take rational decisions precisely by paying due regard to the limitations of his ability to handle large amounts of information.*

The admission by Faludi suggests that there are ‘rational’ ways of taking decisions and of effectively dealing with these limitations and the theorist advocates three ways of planning strategies; namely, (1) *routinization*, (2) *sequential decision-making* and (3) *mixed scanning*. Here the planning strategies of Faludi’s model are investigated in term of Nonaka’s SECI model reinforced by the TEAM linguistic framework (see Figure 4-8).

#### ***Routinization within Nonaka’s SECI model***

According to Faludi (1973), *Routinization* is the usage of automated rule-based systems inherently embedded in most bureaucratic systems which enable planners to arrive at the right programmes for particular objectives without an inordinate amount of resources on each occasion. *Routinization* therefore, is consistent with utilization of *operational knowledge* in Nonaka’s terms, which is acquired through the *internalization mode* of knowledge conversion, in that it is related to the usage of *internalized* rule-based knowledge (see Figure 4-9). As Faludi claims, routinization may be efficient in terms of time, but seen from the perspective of Nonaka’s theory, it becomes ineffective without connection to other modes of knowledge conversion in general and the externalization mode in particular.

#### ***Sequential decision-making within Nonaka’s SECI model***

*Sequential decision-making* is defined as a sequential matrix-based scoring mechanism, the aim of which is to choose a programme in an ad hoc yet systematic way. This may be incorporated into one of the techniques of the *combination mode* of knowledge conversion in Nonaka’s SECI model in that it is concerned with the evaluation of the *combination* of explicit knowledge according to ad hoc criteria (see Figure 4-9). Also from the perspective of Nonaka’s theory, sequential decision-making only works

effectively when it is related to the externalization mode of knowledge conversion because without the mode, it cannot add new criteria.

### ***Mixed scanning within Nonaka's SECI model***

*Mixed scanning* is the combination of a larger scan based on *routinization* and a detailed scan based on *sequential decision-making*, which approaches an issue or problem with a picture of what to expect or how to frame it when approaching an issue. Mixed scanning may therefore be related to both the internalization and combination modes of knowledge conversion (Figure 4-9). However, what is lacking in mixed scanning is the perspective of creating a new framework. In other words, again, without the externalization mode of knowledge conversion, it is difficult to expect that mixed scanning will lead to an effective outcome because it depends entirely on the existing framework. Although as a precondition for creating new knowledge Nonaka also emphasizes the socialization mode of knowledge conversion, which is social interaction to share decision-maker's feelings, insights and beliefs, the above three planning strategies fail to incorporate this mode.

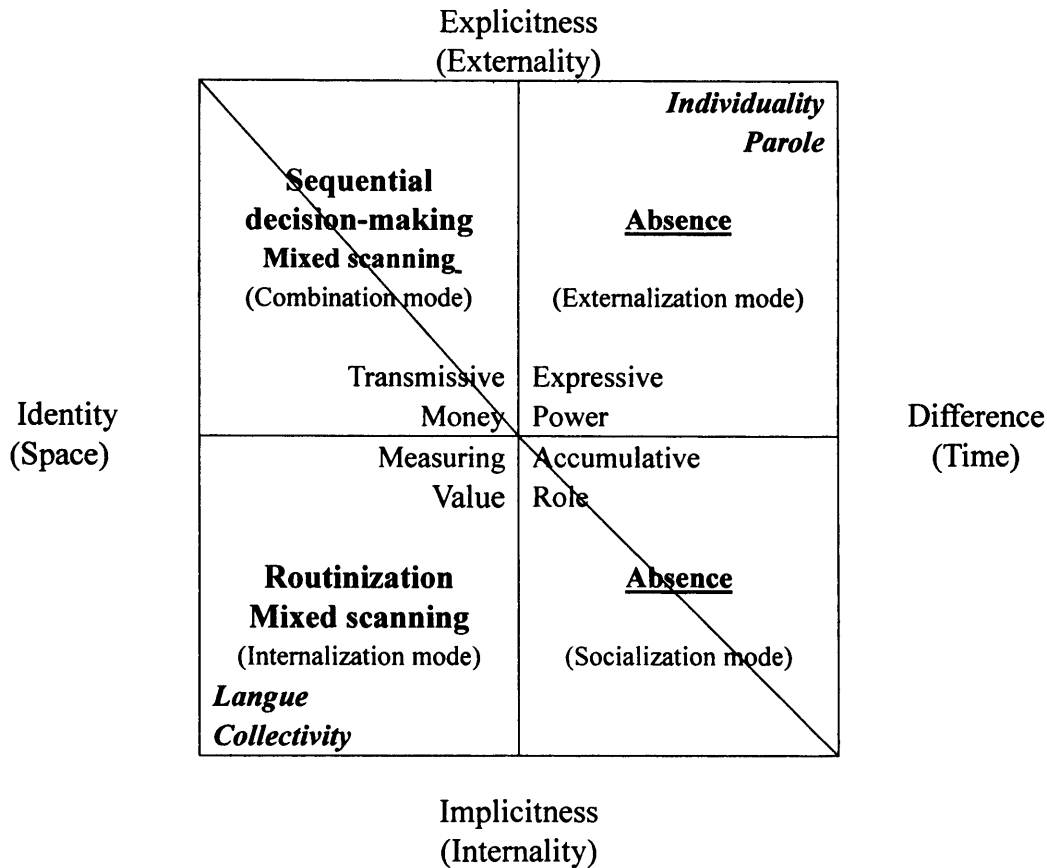


Figure4-9: The relationship between Faludi's planning strategies and Nonaka's SECI model (Source: Author)

The above suggests that all Faludi's planning strategies are concerned with how to process information with limited capacities, relying on existing types of knowledge and any combinations in which this may be present. In other words, there is no intention to create *new knowledge* to solve problems and by employing Nonaka's terms, the planning strategies fail to acknowledge the importance of the externalization and socialization modes, which contribute to creating new knowledge. The analysis now being undertaken in turn suggests that Nonaka's theory has the potential to provide a wider framework into which Faludi's planning strategies can be incorporated.

#### 4.5.4 Conclusions

In this section, Faludi's three-phase operational model of planning agencies has been examined mainly in terms of Nonaka's five-phase model of organizational knowledge creation and his SECI model. In this section numerous limitations in Faludi's

three-phase operational model have been identified and many of them seem to result from epistemological and ontological narrowness and the passive attitude to goal (end) formulation in his model. In particular, because of over-reliance on the ability of individuals to ‘rationally’ acquire and process information, Faludi’s model fails to adequately incorporate the *local / citizen* (tacit) and collective dimensions of knowledge and creative and active dimensions of individual activities (which makes an organization creative) into his three-phase operational model of planning agencies. It is widely argued that lack of *citizens’ tacit knowledge* (such as emotions, feelings and insights) can be the cause of many problems (including the potential for political conflict between planning agencies and citizens). The examination has also identified the limitations of planning strategies, which Faludi assumes overcome information problems in terms of Nonaka’s SECI model. Given that Nonaka’s theory has perspectives which overcome the limitations of Faludi’s model mentioned above, it seems more workable and applicable than Faludi’s three-phase operational model, even to the urban planning context

#### **4.6 Generic conclusions and implications for urban regeneration**

This chapter has attempted to answer whether Nonaka’s theory is applicable to urban regeneration in a theoretical context. In other words, the theoretical part of Hypothesis 2 proposed in chapter 1 has been examined.

##### ***Theoretical limitations of Systems and Rational Theories of Planning***

First of all, the preceding analysis has clearly indicated that compared with Nonaka’s theory, Systems Theories and Rational Theories of Planning have a narrow perspective in their theoretical supposition. While *rationality* as a main concept in both theories corresponds only to *Money* in the four social languages (or the linguistic function of *transmitting* meaning in the four linguistic meaning functions) of the TEAM linguistic structure (see Figure 4-1), the treatment of knowledge utilized in Systems Theories and Rational Theories of Planning corresponds only to *individual systemic knowledge* (*explicit/scientific knowledge*) in Nonaka’s terms (see Figure 4-2). These findings

suggest that Systems Theories and Rational Theories of Planning fail to incorporate *tacit* and *collective* dimensions of knowledge into their theoretical framework and therefore remain in the *monistic* epistemology and ontology. These limitations have also been identified in Faludi's three-phase operational model of planning agencies (see section 4.5).

In contrast, Nonaka, whose SECI model corresponds to all the four social languages in the TEAM linguistic framework, covers not only knowledge utilized in Systems Theories and Rational Theories of Planning, but also other types of knowledge as presented by their critics (see section 4.3.2) with both an epistemologically *dualistic* structure (of tacit and explicit knowledge) and also an ontologically *dualistic* structure (of the individual and collective dimensions).

#### ***Applicability of Nonaka's theory***

Moreover, this chapter has also identified that while Faludi's Rational (process) Theory of Planning is characterized by a *passive* response to a changeable environment, Nonaka's theory looks not only at passive information-processing (-combining) activities, but also at *active* knowledge-creating activities in the form of *problem-discovery (or exploration)*, rather than just *problem-definition*. Moreover, it has also been identified that Faludi's organizational structure model of planning agencies does not incorporate the ideas of Nonaka's five conditions for organizational knowledge creation. When taking into consideration that knowledge-creating activities are increasingly important in emerging knowledge societies and that knowledge-creating activities lead a city to competitive sustainability in an uncertain and turbulent environment, Nonaka's theory has more advantages than Systems Theories and Rational Theories of Planning, even when applied to the urban planning context. By taking all these factors into consideration, it can be concluded that compared with Systems Theories and Rational Theories of Planning, Nonaka's theory is applicable even to the urban planning context, in that it provides a much broader, workable and comprehensive framework for knowledge activities in an organization. Table 4-3 summarises a

comparison between Nonaka's theory and Systems and Rational Theory of Planning based on the examination in this chapter.

Table 4-3: Relationship between Nonaka's theory and Systems Theories & Rational Theories of Planning (Source: Author)

		<b>Systems Theories &amp; Rational Theories of Planning</b>	<b>Nonaka's theory</b>
<b>Epistemology</b>		Explicit (Scientific or objective) knowledge (Monistic)	Tacit & explicit knowledge (Dualistic)
<b>Ontology</b> (Saussure's dualism)		Individual (Parole) (Monistic)	Both individual & collective (Parole & Langue) (Dualistic)
<b>Arena</b>		Bureaucracy	Cross functional team (organization)
<b>Main Aim</b>		To achieve given goals in the most effective way (Passive)	To create new knowledge (Active)
<b>Nishibe's TEAM framework</b>	<b>Money</b> (Technical calculation) Transmissive	Strong	Combination mode (Systemic knowledge)
	<b>Power</b> (Decision) Expressive	Little concern (But for town planners)	Externalization mode (Conceptual knowledge)
	<b>Role</b> (Conventional repetition) Accumulative	Weak	Socialization mode (Sympathized knowledge)
	<b>Value</b> (Symbolic meaning) Measuring	Weak (Value-free approach)	Internalization mode (Operational knowledge)

The preceding analysis, however, has a limitation in its approach. Because of the fact that there is, as mentioned earlier, no comprehensive theoretical framework which can allow for a comparison to be made between urban regeneration process theories and Nonaka's theory from either epistemological and ontological points of view, the preceding examination has based the main consideration on a set of urban planning theories, rather than urban regeneration process theories.



### ***Contribution of this chapter***

This chapter has contributed to the thesis by identifying the limitations of Systems Theories and Rational Theories of Planning in terms of knowledge used in these theories and situating them within the TEAM linguistic framework. In other words, the findings suggest that a new theory for urban regeneration should incorporate all four aspects of the TEAM linguistic framework into its theoretical framework. Secondly, this chapter has contributed to the thesis by identifying that Systems Theories and Rational Theories of Planning tend to be *ontologically* individualistic (ignoring the collective nature) and *epistemologically* explicit (excluding the tacit nature). These limitations imply that sounder theoretical foundations for urban regeneration should have both an epistemologically *dualistic* structure (of tacit and explicit knowledge) and also an ontologically *dualistic* structure (of the individual and collective dimensions). Thirdly, this chapter has also contributed to the thesis by identifying that Nonaka's theory is superior to Systems Theories and Rational Theories of Planning by virtue of its covering the theoretical perspectives on knowledge not only of Systems Theories and Rational Theories of Planning but also of their critics. In other words, all the analysis of this chapter implies that Nonaka's theory may be more applicable even to the procedural (organizational) context of urban regeneration in its theoretical premise, offering a comprehensive framework for knowledge activities.

## CHAPTER 5: AN EXAMINATION OF COMMUNICATIVE PLANNING<sup>1</sup> IN TERMS OF NONAKA'S THEORY

### 5.1 Introduction

#### *Reasons for choosing Communicative Planning*

This chapter aims to investigate the applicability of Nonaka's theory to the urban planning context and ultimately to urban regeneration, by critically examining Communicative Planning in terms of Nonaka's theory of organizational knowledge creation. In other words, this chapter, like Chapter 4, examines the theoretical part of Hypothesis 2 proposed in Chapter 1. There are several reasons why Communicative Planning has been chosen as the theoretical material in this thesis. Firstly, Communicative Planning is one of the main 'procedural theories' of urban planning, which, as identified in Chapter 1, has a theoretical connection with the potentiality of procedural theories of urban regeneration, as well as knowledge management in its process perspective (see Chapter 1, Figure1-1). Secondly, Communicative Planning is, as will be argued later, one of the dominant theoretical discourses of urban planning, or at very least has attracted considerable popularity since the early 1980s. A fact reflected in the recently published book entitled 'Planning Futures: New directions for planning theory' (Tewdwr-Jones & Allmendinger (eds.), 2002) which assembles various critiques of Communicative Planning (including Collaborative Planning).

Thirdly, although both Community Planning and the collaborative partnership approach to urban regeneration are complex, rather than a single coherent position, and incorporate a variety of approaches, strong affinities exist between them in their theoretical grounding. This is so because at the centre, both approaches also emphasize the importance of 'democracy', asserting the effectiveness and fairness of democratic decision-making. Both approaches also consider that an organization made up of people

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<sup>1</sup> Communicative Planning is a broad term for a collection of positions and attitudes that are often quite diverse. By the notion of Communicative Planning, we refer particularly to works by Forester (1989a), Healey (1992a, 1997), Sager (1994) and Innes (1996), which are based on the theoretical and philosophical work of Habermas.

who are brought together from diverse backgrounds (including minorities) can produce more effective results through a decision making mechanism in the form of 'synergy' (the collaborative partnership approach) (see, e.g. Bailey, 1995) or 'communicative rationality' (Communicative Planning) (see, e.g. Healey, 1997).

Fourthly, both approaches are built on the same theoretical notions and perspectives in analyzing and explaining urban issues. For example, they are concerned with notions such as '(community) participation', '(public-private) partnerships' 'empowerment' 'exclusion/inclusion', 'social capital' and 'capacity-building' (see e.g. Forester, 1989; Sager, 1994; Healey, 1997; Hillier, 2002; Pennington, 2002 Tewdwr-Jones & Allmendinger, 2002 for Community Planning and Imrie & Raco, 2003; Kearns, 2003; Raco, 2003 for the partnership approach to urban regeneration). In addition, there is a degree of interaction and interchange in academic research between the Communicative Planning and the collaborative partnership approach to urban regeneration, including to community involvement. For example, North (2003) analyses the two case studies of urban regeneration programmes in south London; namely, Elephant & Castle and Vauxhall, using concepts used in Communicative Planning, such as 'commutative rationality', 'mutual understanding', 'honesty', 'authenticity', and referring to articles written by Communicative Planning advocates including Healey (1997a) and Forester (1999).

All these points imply the close relations between Communicative Planning and community involvement and the collaborative partnership approach to urban regeneration. Taking all these factors into consideration, choosing Communicative Planning as the material of the theoretical examinations in this thesis can be justified. In other words, the examination of the importance and limitations of Communicative Planning in terms of knowledge creation in general and Nonaka's theory in particular at the level of the theoretical supposition can identify the theoretical limitations of the collaborative public-private partnership approach to urban regeneration and make real progress in urban regeneration studies, providing more effective perspectives and

solutions if knowledge creation is vital in the urban regeneration context.

### ***Approaches of this Chapter***

An extensive range of literature of Communicative Planning has been collected and a series of central concepts and issues in Communicative Planning will be presented and critiqued, mainly in terms of the integrated framework of the TEAM linguistic structure and Nonaka's SECI model developed in Chapter 2. Firstly, the considerable attention and criticism which Communicative Planning has received will be identified (in section 5.2). Secondly, the fundamental concept of *communicative rationality* and its applied concept of *consensus building* are examined in terms of the TEAM linguistic framework (in section 5.3). Thirdly, the treatment of knowledge (in section 5.4) and the creation of knowledge (in section 5.5) in Communicative Planning are examined in conjunction with Nonaka's SECI model, reinforced by the TEAM linguistic framework. These provide the opportunity to link Nonaka's SECI model to the knowledge-treatment and creation assumed in Communicative Planning. Fourthly, an organizational structure of Communicative Planning is examined in relation to the organizational structure which Nonaka proposes, using the elements of the TEAM linguistic structure as criteria. After this, Healey's *four 'guides' for strategy making activity* are examined in conjunction with Nonaka's five-phase model of organizational knowledge creation (in section 5.6). The examination will provide the theoretical foundation of the research into the application of Nonaka's theory when applied to the empirical context of urban regeneration in the UK.

## **5.2 Growing interest in Communicative Planning**

### ***The emergence of Communicative Planning***

Whilst approaches that focus on 'communication' in urban planning began to emerge during the 1980s, the theoretical base of Communicative Planning developed in the late 1980s and the early 1990s (see e.g. Forester, 1989a; Healey, 1992a; Sager, 1994). Forester (1989a, p5), in his authoritative and pioneering work, placed communication (such as talk and argument) among citizens at the centre of his theoretical framework of

planning. This theoretical perspective was also offered by Healey (1992a) who describes the movement toward this new form of planning as a 'communicative turn'. Influenced by the early works of Forester (1989a), Healey (1992a) and Sage (1994), interest in Communicative Planning has dramatically increased in recent years and has attracted considerable popularity from both theorists and researchers in the field of urban planning from the 1990s onwards. In this context, Innes (1995) applauded Communicative Planning becoming an *emergent new paradigm*<sup>2</sup> in the field of planning theory that dominates the field. She also claimed that Communicative Planning closed the 'long-bemoaned gap between theory and practice in planning' (Innes, 1995, p183) and that developments of this theory usefully generate richly interpretive studies of practice.

### ***Communicative Planning as an alternative to Systems and Rational Theories of Planning***

One of the main reasons why Communicative Planning has been popular in the field of (urban) planning over two decades may be because, as examined in the previous chapter, from the early 1980s onwards, academics and practitioners in the field of urban planning have clearly identified the serious limitations of Systems Theories and Rational Theories of (urban) Planning based on system and rational thinking and a rigorous, scientific but esoteric analysis. They argued that these theories not only failed to address urban problems and issues, but also had a negative influence on the lives of citizens subjected to their social provision (see section 4.3.2)<sup>3</sup> and regarded communicative forms of urban planning as an alternative, which could overcome these limitations.

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<sup>2</sup> A paradigm is regarded as 'a dominant common understanding of a field that shares concepts, perceptions and styles of reasoning to create a community of research (Tewdwr-Jones & Allmendinger, 2002, p214)

<sup>3</sup> Examples of problems identified are the disaster of high-rise tower blocks for the poor, road projects based on the dominance of economic / rational criteria, the functional categorization of activity zones and ignorance of minorities or the weak (see Chapter 1 & 4).

### ***The philosophical foundation of Communicative Planning***

Habermas's theory of communicative action (see 1984, 1987a) has proved highly influential to proponents of Communicative Planning and it has frequently been applied to the urban planning context (see e.g. Forester, 1989a; Healey, 1992a; Sage, 1994). The reason for this may be that they, as Taylor (1998) points out, consider Habermas's theory could clearly explain, or at least justify, the limitations and problems of Systems Theories and Rational Theories of (urban) Planning in general and bureaucratic planning systems conducted by professional planners in particular and suggest an alternative approach to urban planning with a strong philosophical foundation. In fact, Healey (1992a, 1997), drawing on Habermas's concepts of *lifeworld* and *system*,<sup>4</sup> criticizes the dominating power of planning systems (such as bureaucratic administrations) and professional planners in local government and claims that knowledge and access to these rationales have been 'hijacked' by planners and the voice of citizens is ignored.

### ***Criticisms of Communicative Planning***

Innes claims that Communicative Planning is the new paradigm in the field of planning theory, however, it has generated considerable debate and drawn much criticism from the late 1990s onwards (see e.g. Lauria & Whelan, 1995; Laura, 1997; Tewdwr-Jones & Allmendinger, 1998; Yiftachel & Huxley, 2000; Huxley & Yiftachel, 2000; McGuirk, 2001; Allmendinger, 2002; Harris, 2002; Mantysalo, 2002; Hillier, 2003). Huxley & Yiftachel (2000), for example, argue that unlike Innes's observation, the theorization of planning is heterogeneous, rather than homogeneous, generating a multitude of, rather than a single, theoretical approaches, such as public choice theory and libertarian approaches (see e.g. Sorensen & Day, 1981; Pennington, 2000), regime theory (see e.g. Lauria and Whelan, 1995) and foucauldian approaches (see e.g. Flyvbjerg, 1998;

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<sup>4</sup> According to Habermas (1984), while the *system* he refers to includes the economic system (such as the market place) and the political systems (such as bureaucratic administration), the *lifeworld* is constructed through exchanged and shared personal practical experiences, making for greater solidarity among citizens. Habermas (1984, 1987a) diagnoses a modern society (and the sphere of lifeworld) as having been 'colonized' by the system (that is, the lifeworld has been extendedly monetarized and bureaucratized, world-wide). The dualistic concepts are often mentioned in texts of (urban) planning theory (see e.g. Hoch, 1996; Healey, 1997; Allmendinger, 2002).

Flyvbjerg & Richardson, 2002).<sup>5</sup> Given that, as Forester (2000) argues, Innes's claim may be an exaggeration. What is true is, however, that Communicative Planning has received a considerable amount of attention and paradigmatic status, as witnessed by the recently published book entitled 'Planning Futures: New directions for planning theory' (Tewdwr-Jones & Allmendinger (eds.), 2002) which assembles various critiques of Communicative Planning (including collaborative planning). Given such an ongoing amount of attention and the affinities with the collaborative partnership approach to urban regeneration, it would be useful to critically review Communicative Planning in order for the study of urban planning theory in general, and of urban regeneration in particular, to make any real progress.

### **5.3 Examining the central concepts of Communicative Planning in terms of the TEAM linguistic framework**

#### **5.3.1 Definition of Communicative Planning**

As mentioned earlier, Jürgen Habermas (1984, 1987a, 1987b) has provided the main theoretical and philosophical foundations of Communicative Planning, at least in the early stage of the theorization (see e.g. Forester, 1989a; Healey, 1992a; Sage, 1994). Greatly influenced by Habermas's work, Healey (1992a, p253) in her early work, described 'Communicative Planning' as 'a respectful argumentative form of planning through debate'<sup>6</sup>, which has the potential to 'make a difference' while 'living differently' (Healey, 1992a, 1997). Healey's definition of Communicative Planning is consistent with Innes (1995, p183) who defines planning as an 'interactive, communicative activity and depicts planners as deeply embedded in the fabric of community, politics, and public decision-making'. Drawing on Habermas's (1984) work, Sager (1994, p53) also views planning as communicative action, acknowledging that it

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<sup>5</sup> Allmendinger (2002) also identifies a number of new different schools of planning thought, which he calls *post-positivism* (including postmodern planning (see e.g. Sandercock, 1998), neo-pragmatist planning (see e.g. Hoch, 1996) as well as Communicative Planning and collaborative planning) as opposed to positivism which Systems Theories and Rational Theories of Planning belong to.

<sup>6</sup> Although Healey (2003) claims that the foundation of her own thinking is more the structuration theory of Anthony Giddens (1984) than the theory of communicative action of Habermas (1984), it is obvious that she drew on Habermas in her early stage of the theorization of Communicative Planning. See, for example, Healey (1992a).

offers ‘a new method for perceiving order in the field of planning theory and surveying it’ because ‘the function of public planning in a society is not only to prepare the implementation of physical projects and social politics, but also performing an integrating function in that it nurtures and enlightens public debate about collective action’ (1994, ix). The definitions and perspectives offered by the theorists suggest that Communicative Planning is a new *democratic enterprise* (Healey, 1992a) of (urban) planning based on communicative action among citizens, namely stakeholders who often have very different perspectives, priorities and interests, which can address public issues arising from the problems of co-existence in shared spaces in a more effective and justified way (see e.g. Healey, 1992a, 1997; Innes, 1996, 1998; Innes & Booher, 1999). In this sense, it can be argued that if Systems Theories and Rational Theories of Planning are called the ‘ideology of science’, the communicative approach can be called ‘ideology of democracy’.

### **5.3.2 Communicative rationality in Communicative Planning**

It is apparent that the fundamental concept of Communicative Planning is *communicative rationality* developed by Jürgen Habermas in his theory of communicative action (Habermas, 1984), which is heavily drawn on by Communicative Planning theorists (see, e.g. as Forester, 1989a; Healey, 1992a; Sager, 1994). According to Habermas (1984), *communicative action* is characterized as a kind of *objectivity* based on unforced and reasoned agreement between individuals reached through free and open debates. Habermas (1984) assumes communicative action should be *rational* when reaching intersubjective mutuality of reciprocal understanding among free and equal participants.

#### ***Communicative rationality as an alternative epistemological foundation***

What strikes Communicative Planning theorists in Habermas’s theory of communicative action is that *communicative rationality* provides an alternative epistemological foundation to *instrumental reason* or *functional (instrumental) rationality*, which is the central supposition of Systems Theories and Rational Theories of (urban) Planning (see



e.g. Sager, 1994). In other words, Habermas's main claim makes it possible to replace the traditional individualized concept of rationality applied by these theories, with a new type of rationality formed within inter-subjective communication (see Healey, 1992a).<sup>7</sup> It should be noted here that Communicative Planning is still heavily concerned with the perspective of rationality in the planning context and in this sense, Communicative Planning remains a modernist (rather than post-modernist) theory, at least in its early stage of theorization.

### **5.3.3 Consensus building in Communicative Planning**

Communicative Planning has also a strong practical orientation to its efforts (see e.g. Innes, 1995, Taylor, 1998 and Harris, 2002) and therefore the concept of communicative rationality is often transferred to the concept of *consensus building* (on public issues among stakeholders) in planning practices. In this sense, it can be argued that consensus building is a practical concept of communicative rationality and the goal of communicative action in Communicative Planning.<sup>8</sup> Innes & Booher (1999, p11) defines consensus building as 'the processes in which individuals representing differing interests engage in long-term, face-to face discussions, seeing agreement on strategy, plans, policies, or actions'.

#### ***Consensus building as equal power-sharing***

Both Healey and Innes also claim that consensus building has an advantage in that it is based on the idea of *equality of power*, regarding collaboration in consensus building as equal power-sharing. In this way, Communicative Planning tries to encourage the participation of all stakeholders to equally share power while reducing or removing the power that contributes to discrimination and exclusion. In this sense, the aim of Communicative Planning is, as Hillier (2002) and Sager (1994) point out, not only to

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<sup>7</sup> Healey (1992a, p253) claims that, the concept of communicative rationality is appropriate to our recognition of the failure of modernity's conception of *pure reason*, yet searching 'for a continuation of the Enlightenment project of democratic progress through reasoned intersubjective argument among free citizens'.

<sup>8</sup> For example, Innes (1996, p461) claims that consensus building has 'become more popular as a way to address complex, controversial public issues where multiple interests are at stake'.

achieve consensus between stakeholders through dialogue, but also to achieve *emancipatory power* from, for example, bureaucratic administration.

#### **5.3.4 Habermas's ideal speech situation as normative criteria**

In reality, it is, as Habermas (1979) himself admits, difficult to reach communicative rationality (or consensus) based on mutual understanding through communicative action. He therefore provides normative criteria (universal validity claims) for reaching communicative rationality, called an *ideal speech situation* under which the utterance of the speaker can be rationally checked, assessed and judged. These criteria are *comprehensiveness*, *propositional truth*, *subjective truthfulness (sincerity)* and *normative rightness*. In other words, communicative action is legitimate when the ideal speech situation is met between participants. Forester (1989a) applies Habermas's ideal speech situation to the planning context and claims that mutual understanding among participants in policy-making depends on the satisfaction of the four criteria; namely, *comprehensibility*, *sincerity*, *legitimacy* and *accuracy (truthness)*. This suggests that Habermas's theory and Communicative Planning as its application are by its very nature a *critical* rather than constructive theory, in which a certain opinion is rationally checked and judged, rather than created and developed.

#### ***Criticisms of the application of communicative rationality***

However, there are many criticisms of the application of communicative rationality (and consensus building) based on Habermas's ideal speech situation as criteria to the (urban) planning context (see e.g. Healey and Hillier, 1996; Taylor, 1998; Tewdwr-Jones & Allmendinger, 1998; Hillier, 2000, 2002, 2003; McGuirk, 2001; Allmendinger, 2002; Mäntysalo, 2002). They argue that Habermas's theoretical foundation of communicative rationality and an ideal speech situation are too abstract and idealistic and even utopian and therefore provides little guidance on how communicative action could actually work in planning practice and how to organize and manage planning processes (see e.g. Healey & Hillier, 1996; Taylor, 1998; Mäntysalo, 2002).<sup>9</sup> In other words,

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<sup>9</sup> Habermas (1996) himself admits the counter-factuality of the validity claims, but claims that it can

communicatively rational action lacks prescriptive capacity (Tewdwr-Jones & Allmendinger, 1998). The empirical research from planning practice has also increasingly demonstrated that the ideal of communicative rationality and consensus-formulation has rarely been achieved (e.g. Flyvbjerg, 1998; Tewdwr-Jones and Thomas, 1998; Hillier, 2000; McGuirk, 2001).

### **5.3.5 Communicative rationality within the TEAM linguistic framework**

The TEAM linguistic framework is useful in explaining the theoretical preference and limitations of Communicative Planning. Communicative rationality (and consensus building) may fall into the *collective* dimension of the quadrant of *identity-explicitness (Money)* in the TEAM linguistic framework (see Figure 5-1). This is so because communicative rationality requires *explicitly collective* forms of arguments or debates and seeks a horizon of *identification* (consensus) with others. In this sense, the relationship between instrumental (functional) rationality in Systems Theories and Rational Theories of Planning and the communicative rationality in Communicative Planning is a shift from the *individual* to *collective* dimension in the same quadrant within the TEAM framework.

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be used as a critical standard against which actual practice may be evaluated. See also Hillier (2003) and Healey (2003) who mention this.

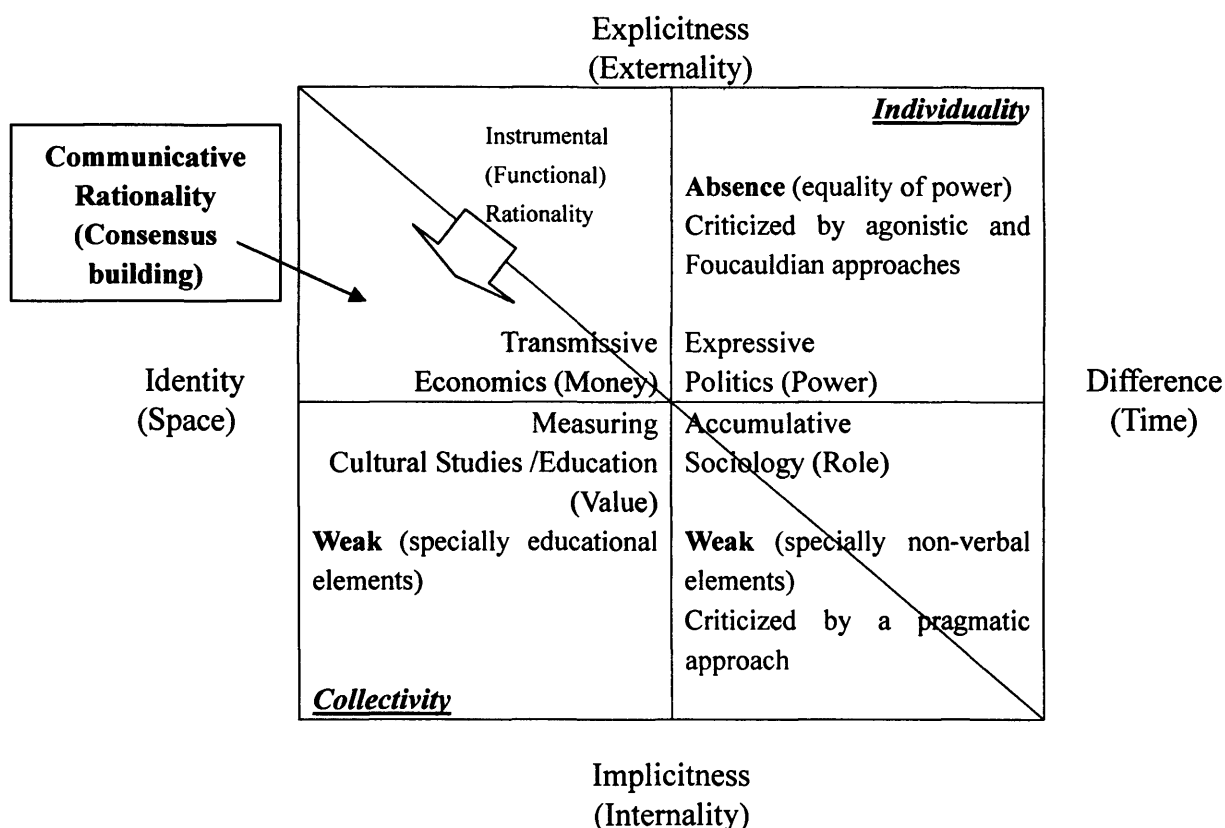


Figure5-1: Communicative rationality within the TEAM linguistic framework (Source: Author)

### ***Overall limitation of communicative rationality***

Figure 5-1 in turn shows some critical limitations of the concept of communicative rationality.<sup>10</sup> Firstly and overall, the heavy reliance on (communicative) rationality is problematic because this is a far too narrow supposition, which corresponds mainly to the half of one (the *transmissive* function) of the four linguistic meaning functions in the TEAM linguistic framework. In other words, seen from the stand point of the TEAM linguistic framework, communicative rationality ignores other crucial aspects of linguistic meaning functions (the *expressive*, *accumulative*, *measuring* functions) or social languages (such as Politics/Power, Sociology/Role, Culture/Value), which the human being inevitably relies on in their activities. As a result, it becomes, as many critics of Communicative Planning (see e.g. Tewdwr-Jones & Allmendinger, 1998; Mäntysalo, 2002) point out, unrealistic and utopian to function as a model for real life planning practices. Moreover, the heavy reliance on communicative rationality is not

<sup>10</sup> This figure also provides the critical perspectives to Communicative Planning taken by the critics of Communicative Planning within the TEAM linguistic framework.

only unrealistic, but also oppressive. According to Nishibe (1996), too much emphasis on rationality (or the function of *transmitting* the meaning of language) tends to become stereotyped, confined and deadlocked forms of communication. Although Communicative Planning as based on the notion of communicative rationality gives little attention to the perspective of *accumulation*, Nishibe also points out that communicative activity that does not make reference to this perspective will be disconcerted. In order to facilitate 'alive' communication in planning practices, the four linguistic meaning functions should be equally weighted.

### ***Limitation of the dichotomy between instrumental and communicative rationality***

Secondly, although Communicative Planning acknowledges the problems associated with the use of functional (instrumental) rationality in Systems Theories and Rational Theories of Planning, the dichotomy between instrumental rationality and communicative rationality posited by Communicative Planning, regarding the former as problematic, is not fruitful. This is again because both concepts of rationalities are still only part of the human (linguistic) activities which fall into the quadrant of identity-explicitness (Money) in the TEAM framework (see Figure 5-1). This point is also made by Mäntysalo (2002) and Harrison (2002) who argue that functional rationality and communicative rationality should be interplayed, rather than alternates, in order to make a constructive theoretical contribution to, for example, organisational management and learning in the urban planning context.

### ***Lack of the awareness of a political aspect***

Thirdly, the concept of communicative rationality is problematic because its pursuit fails to adequately acknowledge the *political* nature of urban planning (see Figure 5-1). By assuming that communicative rationality is reached based on a *levelling of power* to free citizens from bureaucracy (Healey, 1992a, 2003), Communicative Planning theorists tend to overlook 'irrational' *Power (Political)* elements of human beings, which are inevitably utilized in the form of value judgment in actual situations of difference and the inherent conflict in opinions among citizens, as well as of limited time, costs,

resources and abilities (knowledge) to make a decision. In reality, some legitimate people (such as planners or politicians in local government) inevitably play crucial leadership roles (using one of the linguistic functions of *expressing* meaning) in actual situations. In this context, it is difficult to distinguish persuading someone from exercising power. This means that the pursuit of communicative rationality is incompatible with the acknowledgement of the existence of *Power* as an inevitable media.

This point to some extent corresponds to criticism of Communicative Planning made by academics who take agonistic or foucauldian approaches to urban planning (see e.g. Hillier, 2000, 2002, 2003; McGuirk, 2001, Flyvbjerg & Richardson, 2002; Mäntysalo, 2002, also see again Figure 5-1). McGuirk (2001) claims that in spite of the fact that the inevitability of uneven power infuses planning practice and even bottom-up participatory practice, there is no possibility that commutative rationality based on transparently reflexive reasoning processes in Communicative Planning is compatible with the irreducible and constitutive nature of power, difference, inequality, domination and inherent conflict (antagonisms).<sup>11</sup> In addition, although Communicative Planning theorists seem to regard power as a negative factor, it is important to suggest the importance of the positive and productive use of power (see e.g. Harrison, 2002; Mäntysalo, 2002). Mäntysalo (2002), for example, argues that Communicative Planning overlooks a creative, positive, constructive aspect of power in planning decision-making.

#### ***Lack of awareness of an economic aspect***

Fourthly, the concept of communicative rationality is problematic because (although it includes *rational* elements of human activities) it cannot adequately include *economic* (*money*) elements. In other words, communicative rationality fails to acknowledge the significance of *adapting* to the changing world in an *economic* (technical) way and does not have a circumstantial enough perspective. That is to say, it fails to adequately convey that public policy should contribute to the urban *economic development* that

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<sup>11</sup> However, Mouffe (2000) suggests that constitute forms of power is compatible with democratic values

enables a city to survive in a changing society. Failure to do so may result in economically negative consequences. This point echoes the criticism of Communicative Planning by theorists of urban political economy such as Lauria and Whelan (1995) and others (see e.g. Fischler, 2000; Landry, 2000) who argue that Communicative Planning gives insufficient emphasis to the driving forces of the globalizing capital economy.

### ***Lack of awareness of a sociological aspect***

The concept of communicative rationality does not seem to sufficiently incorporate a *social* (sociological) aspect (in the quadrant of *Role* of social language) into the theory of urban planning, which falls into the quadrant of *difference-implicitness* in the TEAM linguistic framework (see Figure 5-1). This is so because due to too much attention to formal (explicit) and teleological meetings under which rationality based on debates or argumentations is reached, Communicative Planning fails to adequately understand the significance of implicit practice and the role of experience, which might lay at the unconscious (*implicit*) level and remain context-specific (*differentiated* from universality) and therefore might not be captured only through debates or argumentation. This may to some extent function to mediate different views among participants. This point is also made by theorists who take a position of pragmatism in the field of philosophy (Rorty, 1989) and of urban planning (see, e.g. Hoch, 1996, Harrison, 2002). Hoch (1996) argues that there isn't a need for an idealistic conception of universal conditions to reach (communicative) rationality and instead he emphasises the significance of *solidarity*, which is, according to Harrison (2002), to be gradually constructed from fragments of empathy, sentiment and common experience.

### ***Lack of the awareness of a cultural aspect***

Communicative rationality is also problematic in terms of the lack of attention to cultural/educational aspects, which falls into the quadrant of *identity-implicitness* (or *Value* of social language) (see Figure 5-1). In other words, it is difficult to maintain, conserve and restore cultural values in a city (such as the aesthetic integrity of cities) through communicatively rational action among citizens because local cultures might be

historically constructed and citizens may not adequately appreciate (local) cultural values, objects or processes generated, or they just may not articulate them with language. If such information failures cannot be addressed through communicatively rational action among citizens, cultural values would be assessed and judged, for example, by experts trained in the appropriate field (such as archaeologists, art historians and conservators) (see Throsby, 2001) rather than through a consensus building approach. The lack of educational aspects in Communicative Planning is also alluded to by academics such as Tewdwr-Jones & Allmendinger (1998).

### **5.3.6 Conclusions**

This section examined the fundamental concept of communicative rationality (based on an ideal speech situation as a normative criteria) and its practical notion of consensus building in Communicative Planning in terms of the TEAM linguistic framework. Nishibe (1996) assumes that when a balance is maintained between the four TEAM functions of linguistic meanings, the symbolic cosmos, here communicative (linguistic) activities in decision-making of (urban) planning, become characterized by stable continuity, creating new meanings to balance conflict. The heavy reliance on the supposition of the *communicative rationality* in Communicative Planning makes the theoretical work inherently problematic because it fails to comprehensively and adequately incorporate the four crucial aspects of the linguistic meaning functions into its theoretical foundation.

### ***A shift of focus in Communicative Planning***

It is, however, neither fair or sufficient to criticize Communicative Planning only in terms of the inadequacy and limitations of the concept of communicative rationality (and consensus building) because Communicative Planning theorists themselves have also identified limitations of Habermas's communicative rationality in their empirical studies and found inspiration from other interrelated but contradictory strands of (non-positivist) philosophy and social theories, such as Anthony Giddens (see e.g. Healey, 1997). This has generated a number of interpretations, further investigations and



a wider scope of understanding (see e.g. Healey 1997, 1999b; Innes, 1998, Innes & Booher, 1999; Harris, 2002).<sup>12</sup> As Fischler (2000) points out, Innes (1998) shifts her focus in Communicative Planning from universality of communicative rationality to the context-specific nature of planning shown in the shared interests of local players. Healey (1997) also suggests the importance of *local knowledge* in planning activities (which will be argued later), rather than communicatively universal knowledge. Although these attempts to shift in focus made by Communicative Planning theorists decrease theoretical coherence, they increase practical applicability. In using the TEAM framework, their shifts of focus should be described from the quadrant of *Economics* as a social language to one of *Sociology* in the collective dimension (see Figure 5-2).<sup>13</sup>

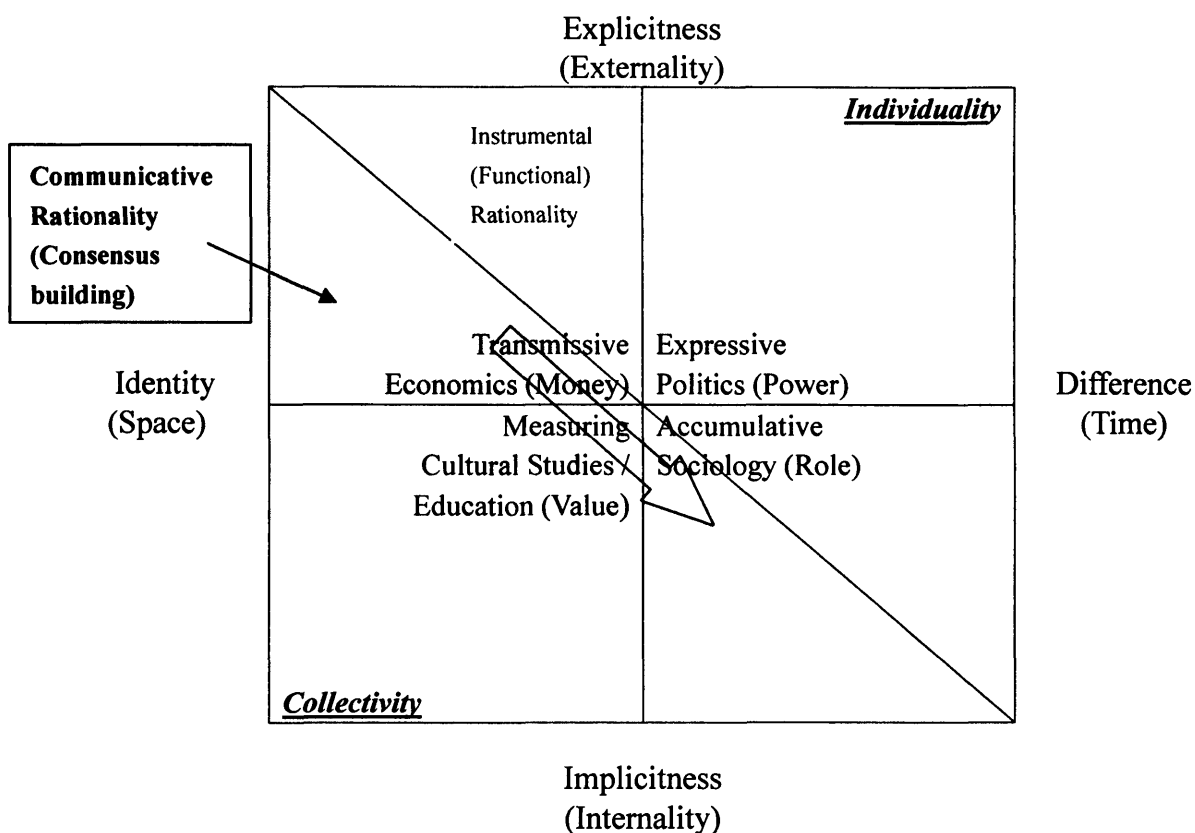


Figure 5-2: Shift of focus in Communicative Planning within the TEAM linguistic framework (Source: Author)

<sup>12</sup> For example, building on recent developments in regional economics and sociology, Healey (1997, 1999b) developed her theory of *collaborative planning* by combining Communicative Planning and an institutional approach, assuming that institutional approaches to planning better deal with the dynamics of urban and regional change.

<sup>13</sup> In other words, the shift of emphasis in Communicative Planning can be said to be from a modernist to a pragmatist or post-modernist approach.

### ***The applicability of Nonaka's theory***

Nonaka's SECI model is, as examined in Chapter 2, concerned with all aspects of the TEAM linguistic framework in the business organizational context, implicitly paying sufficient attention to the four linguistic meaning functions. Given this, it can be argued that Nonaka's theory is more applicable than Communicative Planning, even to urban planning contexts, in its fundamental, theoretical grounding.

In order to make a close examination on the applicability of Nonaka's theory to the urban planning context, the next section investigates types of knowledge utilized in Communicative Planning in relation to Nonaka's SECI model as already examined in the KM context in the West (in section 3.3).

## **5.4 Examining knowledge utilized in Communicative Planning in terms of Nonaka's SECI model**

### **5.4.1 Knowledge types identified in Communicative Planning**

Drawing on Habermas's claim of the three knowledge systems,<sup>14</sup> Communicative Planning theorists such as Healey (1997) have identified several ways of knowing or reasoning and claims that there is a need for greater breadth in understanding diverse ways of knowing in planning. Innes (1998) also argues that Communicative Planning needs a new concept of knowledge,<sup>15</sup> which supplements scientific knowledge based on instrumental rationality. Drawing on Geertz (1983), Healey (1997) posits *local knowledge* as the knowledge base of Communicative Planning and defines local knowledge as '*a mixture of systematized, formalized and calculated knowledge and a store of proverbs and metaphors, and of practical skills and routines, conveyed as much in what is not said as what is*' (Healey, 1997, p38).<sup>16</sup>

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<sup>14</sup> Habermas argues there are three modes of reasoning (knowing): instrumental-technical reasoning, moral reasoning, and emotive-aesthetic reasoning.

<sup>15</sup> Innes (1998) uses the term 'information' in her argument, but here the term 'knowledge' is used instead because her concept of information is close to the concept of knowledge in this research.

<sup>16</sup> Innes (1998) also provides five types of knowledge that are required by planning activities and these include; (1) technical, formal or scientifically validated knowledge, (2) participants' own experience (e.g. the result of the land use regulation in practice at the local level), (3) the stories participants told (e.g. personal stories as 'anecdotal' and unscientific, myths, stories about people in the past), (4) the images and representations (e.g. photographs and drawings) (5) intuition (e.g. the

### ***Social capital as a type of knowledge***

The notion of *social capital* is an additional important aspect to which Communicative Planning pays attention in relation to types of knowledge. According to Communicative Planning theorists such as Innes (Innes et al., 1994; Innes, 1998) and Healey (1997), social capital is built up through consensus building activities, which also function as a social learning process. For example, Healey (1997) argues that through discursive practices of consensus building work among different interest groups or individuals, people learn about each other, about different perspectives and come to reflect on their own point of view. Healey goes on to claim that such a process leads to building up social capital (such as mutual understanding, trust and confidence across conflicts) among participants. A similar argument is followed by Innes (Innes, 1998; Innes et al., 1994) who assumes that in consensus building work, only if there is plenty of talk about the meaning of knowledge (information), its accuracy and its implications, will it become *social capital*, which can endure beyond the particular collaborative effort. It is apparent that the concept of social capital is in line with *sympathized knowledge* created through the *socialization* mode of knowledge conversion in Nonaka's terms (see section 2.5.1).<sup>17</sup> In this sense, it is appropriate to regard the concept of social capital in Communicative Planning as one type of knowledge.

### **5.4.2 Knowledge utilized in Communicative Planning within Nonaka's SECI model Framework**

It is possible to apply the types of *local knowledge* in Communicative Planning defined by Healey (see section 5.4.1) and *social capital* as a type of knowledge to the integrated framework of the TEAM linguistic structure and Nonaka's SECI model (see Figure 5-3).

*Systematized, formalized and calculated* knowledge identified by Healey falls into the

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participants' personal sense of the situation). Sandercock, an advocate of post-modern planning, also provides various ways of knowing, see section 4.2.3.

<sup>17</sup> Social capital is also in line with *encultured knowledge* in Blackler (1995) and Alvesson & Kärrenman (2001)'s terms. Such theorists argue that the creation of *encultured knowledge* functions as mediating social norms among members. See section 3.3.3.

quadrant of *systemic knowledge* expressed in Nonaka's terms. Knowledge of *metaphors* (and *proverbs*) falls into the quadrant of *conceptual knowledge*. Similarly, knowledge of *routines* falls into the quadrant of *operational knowledge*. Knowledge of (*practical*) *skills* falls into the quadrant of the individual dimension of *sympathized knowledge*. *Social capital* falls into the quadrant of the collective dimension of *sympathized knowledge*.

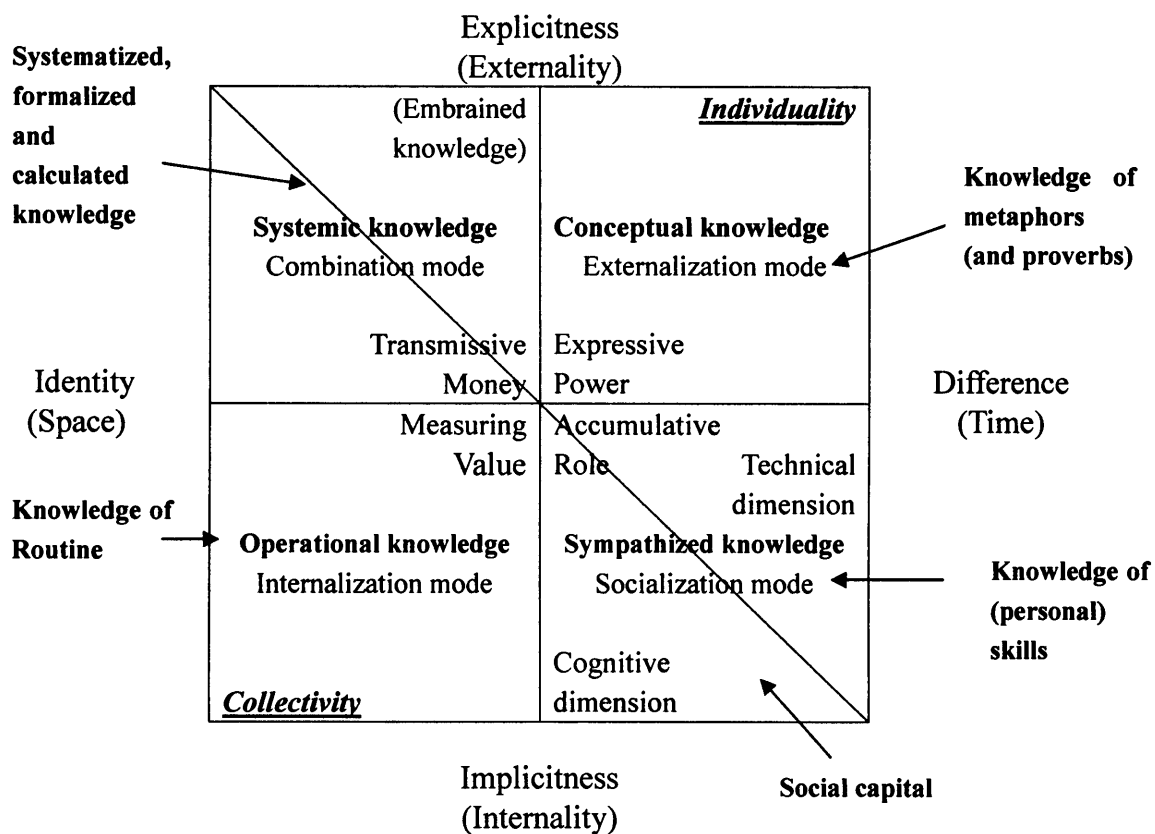


Figure5-3: Relationships between knowledge in Communicative Planning and knowledge in Nonaka's theory (Source: Author)

### 5.4.3 Conclusions

#### *Consistency with Nonaka's theory in the identification of a variety of knowledge*

Seen from Figure 5-3, there are some important implications of the treatment of knowledge in Communicative Planning in relation to Nonaka's theory. Firstly, Communicative Planning, like Nonaka's theory, has identified the significance of diverse types of knowledge in planning activities (such as policy-making), which include both explicit and implicit (tacit) dimensions of knowledge in Nonaka's terms,

while the diverse types of knowledge in Communicative Planning are assumed to be (or able to be) combined together, rather than separated.

### ***Immature definition of knowledge***

The diverse types of knowledge defined by Healey, however, remain ad hoc and immature and Communicative Planning fails to provide a comprehensive theoretical framework in which a rich variety of ways of knowing are mutually related. The analysis has also identified that such various knowledge has been incorporated into Nonaka's theoretical framework (again see Figure 5-3). The way to acquire these types of knowledge has also not been closely examined in Communicative Planning and as a result, it provides few practical guides to practitioners to acquire new knowledge. Nonaka clearly provides four ways of knowledge acquisition (conversion) in his SECI model.

### ***Much focus on the tacit rather than explicit dimension of knowledge***

Although Communicative Planning, as mentioned earlier, identified various types of knowledge, it seems that attention has not been given to these in a balanced way. While Communicative Planning does not limit its knowledge base to technical and scientific knowledge, which is acquired through rigorous methods of science and which Systems Theories and Rational Theories of Planning regards as the only important knowledge, it therefore can deal with implicit (tacit) knowledge such as citizens' personal skills and experiences and mutual trust and understanding which are not included in Systems Theories and Rational Theories of Planning. However, Communicative Planning in turn tends to place too much focus on the tacit-based knowledge. It also fails to adequately recognize the importance of the non-verbal practices and informal meeting in the tacit dimension which Nonaka incorporates into his SECI model.<sup>18</sup>

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<sup>18</sup> Such as sharing of knowledge among participants not only through formal dialogue or argument, but also through informal activities (such as activities away from work), see Nonaka & Takeuchi (1995)

### ***Ignorance of the individual dimension of knowledge***

Although Communicative Planning emphasizes the collective dimension of knowledge acquired through dialogue or mutual interaction among citizens and city planners, which again is not dealt with by Systems Theories and Rational Theories of Planning, Communicative Planning tends to ignore the importance of the individual (explicit) dimension of knowledge. This point will be discussed more in the next section.

Nonaka's theory is a more sophisticated theory than Communicative Planning in the clear classification of the types of knowledge (and the incorporation of its acquisition into the theory), supplementing the relatively ad hoc and immature perspective of knowledge in Communicative Planning. Here a question emerges. That is, how Communicative Planning assumes new knowledge is created using its varieties of knowledge. In order to make a close examination of the applicability of Nonaka's theory to the urban planning context, the next section investigates the assumptions underlying new knowledge creation in Communicative Planning in terms of the integrated framework of the TEAM linguistic framework and Nonaka's SECI model, paying attention to the *ontological* position Communicative Planning takes.

## **5.5 Examining knowledge creation in Communicative Planning in terms of Nonaka's SECI model**

### **5.5.1 Knowledge creation in Communicative Planning**

How does Communicative Planning assume (new) knowledge is *created* in policy-making? Healey (see e.g. 1992a, 1997, 1999a, 1999b), for example, argues that knowledge is not pre-formulated, but is specifically *created (constructed<sup>19</sup>) anew* through socially exchanged perceptions and understanding among policy makers in consensus building work based on verbal communication, rather than by the manipulation of abstract techniques by autonomous individuals. Innes (1995, 1996, 1998) also argues that, rather than explicit quantitative data, a set of knowledge which is *embedded* in a participant's and policy actor's assumptions and mindsets has a huge

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<sup>19</sup> Healy uses the word 'knowledge construction' instead of knowledge creation. Both words could be used in the same meaning.

influence on policy making. What advocates of Communicative Planning such as Healey and Innes are arguing is that in making a policy, new knowledge is created through *social (or collective) interaction* among participants in consensus building work, on which the existing participants' perspectives and mindsets have an influence, and this is gradually *internalized* as a newly created knowledge base in the community, which in turn provides new frameworks for thinking, context and modes of use of rules.<sup>20</sup>

### 5.5.2 Knowledge creation in Communicative Planning within Nonaka's SECI model framework

Figure 5-4 incorporates the concepts associated with knowledge creation (such as verbal communication, social (collective) interaction and sharing participant's and policy actor's perceptions and mindsets) in Communicative Planning into the integrated framework.

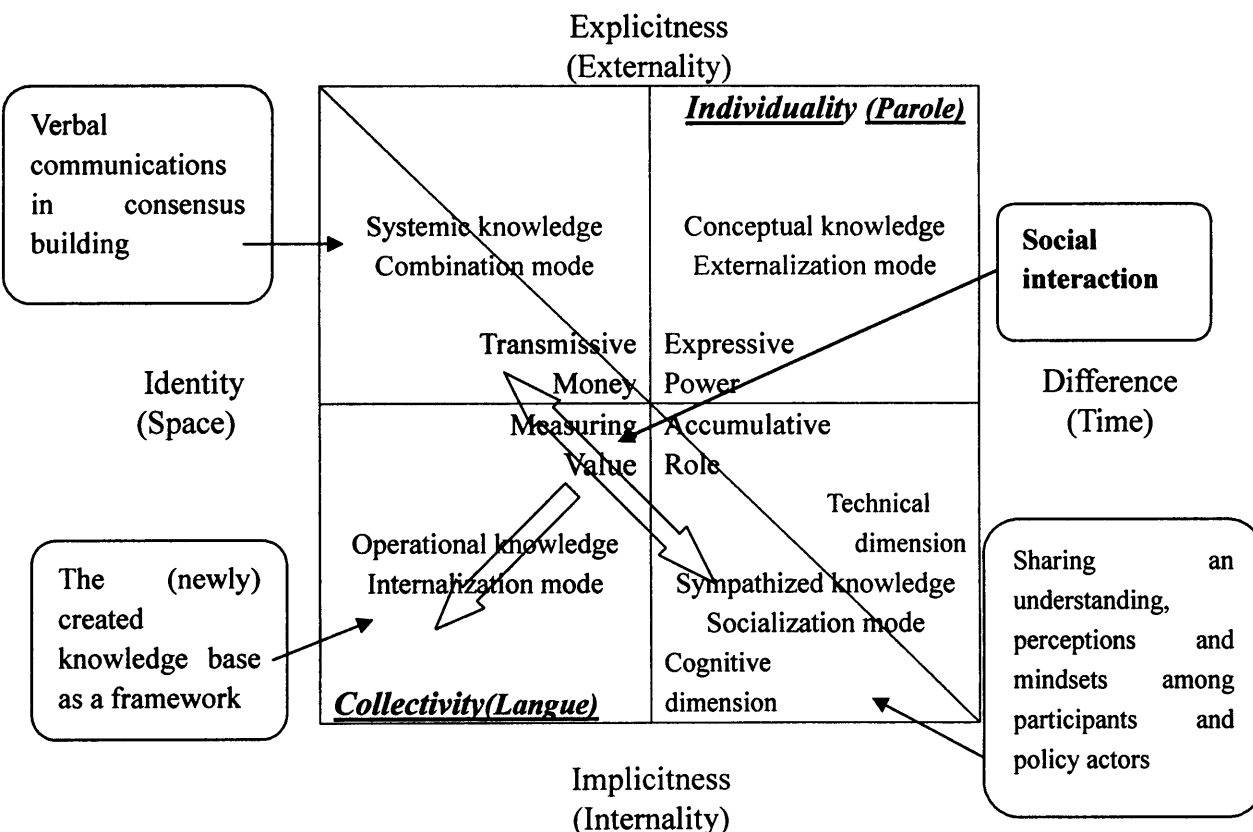


Figure5-4: Knowledge creation in Communicative Planning within Nonaka's framework (Source: Author)

<sup>20</sup> Healey calls such knowledge base 'institutional capacity' which is defined as 'the overall quality of the collection of relation network' and argues that institutional capacity can be transformed through consensus-building practices. See Healey 1997, p61.

The verbal communication in consensus building work falls into the quadrant of the collective dimension of *systemic knowledge* (because of its explicit, identified nature), which is acquired through the combination mode of knowledge conversion in Nonaka's terms, while the implicit dimension of sharing policy makers' perceptions and mindsets in consensus building work falls into the quadrant of the collective dimension of *sympathized knowledge* (because of its implicit, context-specific nature), which is acquired through the socialization mode of knowledge conversion. The newly created knowledge (base) through this work corresponds to the quadrant of *operational knowledge* in Nonaka's terms.

### 5.5.3 Conclusions

In using the integrated framework of the TEAM linguistic structure and Nonaka's SECI model, some implications and limitations of the suppositions of knowledge creation in Communicative Planning are identified (see again Figure 5-4). Firstly, knowledge creation processes in Communicative Planning have an affinity with KM theorists in the West in that the collective rather than individual dimension of knowledge is emphasized (see section 2.4). In this sense, the approach of Communicative Planning to knowledge (creation) goes well beyond the planning paradigm and has a similarity with western KM theories.

Secondly, Communicative Planning has an affinity with Nonaka's theory in that both theories assume that (new) knowledge is created in a dynamic, rather than static, way and such processes are seen as social learning processes. The dynamic nature of Communicative Planning can be incorporated into Nonaka's theoretical framework, but only into the ontologically *collective* dimension. In other words, as Figure 5-4 suggests, due to over-emphasis on 'the inter-subjective and relational ontology' (Healey, 1999b, p1129), the weakness of the concept of knowledge creation in Communicative Planning lies in the narrow, monist ontology.



In using ontologically linguistic dualism, Communicative Planning at large fails to acknowledge the significance of the individual (*parole*) dimension of knowledge (the significance of a particular individuals' actions, thinking or reflections), which can contribute to the advancement of knowledge creation in actual, specific, unique ways.<sup>21</sup> Using Nonaka's terms, Communicative Planning fails to adequately acknowledge the importance of the *externalization* mode of knowledge conversion, which is related to the imaginative, figurative dimension of language in which particular individuals usually have more abilities than others. This limitation of Communicative Planning is also pointed out by some planning theorists and researchers (see Tewdwr-Jones & Allmendinger, 1998; Tewdwr-Jones, 2002), who argue that in Communicative Planning, there seems to be little room for discussing and analyzing particular individuals who play the important roles in urban planning and point out that individuals have their own thought processes that inevitably also has an influence on planning activities (see, Tewdwr-Jones, 2002).<sup>22</sup>

Apart from the analysis based on Figure 5-4, Communicative Planning also fails to identify the actual organizational conditions under which new knowledge construction may occur. Nonaka's theory presents five organizational conditions which facilitate the processes of knowledge creation in an organization (see section 2.7). This point will be examined in the empirical context of urban regeneration in Chapter 6.

### ***Nonaka's theory and the TEAM linguistic approach***

Given that Nonaka's theory successfully incorporates both important ontological dimensions into his theory, explicitly associated with the relationship between individual knowledge (*Parole*) and collective knowledge (*Langue*), and their respective roles and functions in knowledge activity in an organization (in section 2.4)<sup>23</sup>, seen from

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<sup>21</sup> Communicative Planning believes that the development of individual actions leads to totalitarianism.

<sup>22</sup> Replying to such criticism of the ontology in Communicative Planning, Healey (1999b, p1132) contrasts the ontological position of Communicative Planning theory with that of Tewdwr-Jones & Allmendinger (1998), regarding them as utilitarian, which is assumed to be autonomous individuals with sets of independently articulated preferences.

<sup>23</sup> Nonaka assumes that although knowledge is *amplified* and *crystallized* through *social* interaction

the TEAM linguistic structure, Nonaka's theory provides an appropriate framework for knowledge creation, even in the urban planning context, overcoming the ontological weakness of Communicative Planning.

### **5.6 Analysing the organizational structure of Communicative Planning in terms of the linguistic framework**

The previous sections examined the theoretical foundations, assumptions and main issues associated with Communicative Planning and analyzed the treatment and creation of knowledge in relation to Nonaka's theory, using the integrated framework of the TEAM linguistic structure and Nonaka's SECI model as criteria. This section shifts the focus of the investigation towards an *organization structure* assumed by Communicative Planning, comparing it with organizational structures which Nonaka and Systems Theories and Rational Theories of Planning assume. The elements of the TEAM linguistic structure are again utilized as analytical criteria.

#### ***A stakeholder-community vs. a corporatist model***

Healey (1997, chapter 8) develops an organizational structure model for Communicative Planning called *the stakeholder-community model*. According to Healey, the stakeholder-community model is characterized by the *inclusionary* nature and *unfitted*, changeable members who have a stake in the issue at hand and local knowledge. Therefore strategy-making for urban planning is conducted in an *informal* arena apart from bureaucracy. This is in sharp contrast with a *corporatist-model* (which is regarded as an organizational structure model of Systems Theories and Rational Theories of Planning by Healey) which is marked as its *exclusionary* nature and *fixed* membership through which decision-making is conducted in the *formal* arena of bureaucracy. Communicative Planning theorists criticize the *corporatist-model* because it tends to inhibit and constrain new knowledge creation due to the dominance of its exclusive and narrow perspective of bureaucracy.

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among members in an organization, it starts with *individual* (tacit) knowledge.

### ***The stakeholder-community and the corporatist-model within the linguistic framework***

Based on the two linguistic classifications of the TEAM linguistic structure; namely, one regarding *explicitness (externality)/implicitness (internality)* and the other regarding *difference/identity* (see Figure 1-2), the relationship in the character between the stakeholder-community model and the corporatist-model is examined (Figure 5-5). The stakeholder-community model falls into a triangle relying on difference and explicitness (externality) dimensions within the linguistic framework because it emphasizes changeable members with *explicitly different* opinions, in which knowledge tends to be more *externalized* (expressed), rather than collectively *internalized* (*accumulated* or *measured*). In contrast, the corporatist-model is situated in a triangle relying on identity and implicitness (internality) dimensions (see Figure 5-5) because it emphasizes the systematically universalized (and therefore *identified*) opinions based on trained and *fixed* members (in a bureaucratic organization), in which knowledge tends to be *internalized* as *implicitly accumulated, authorized* and *measured*.

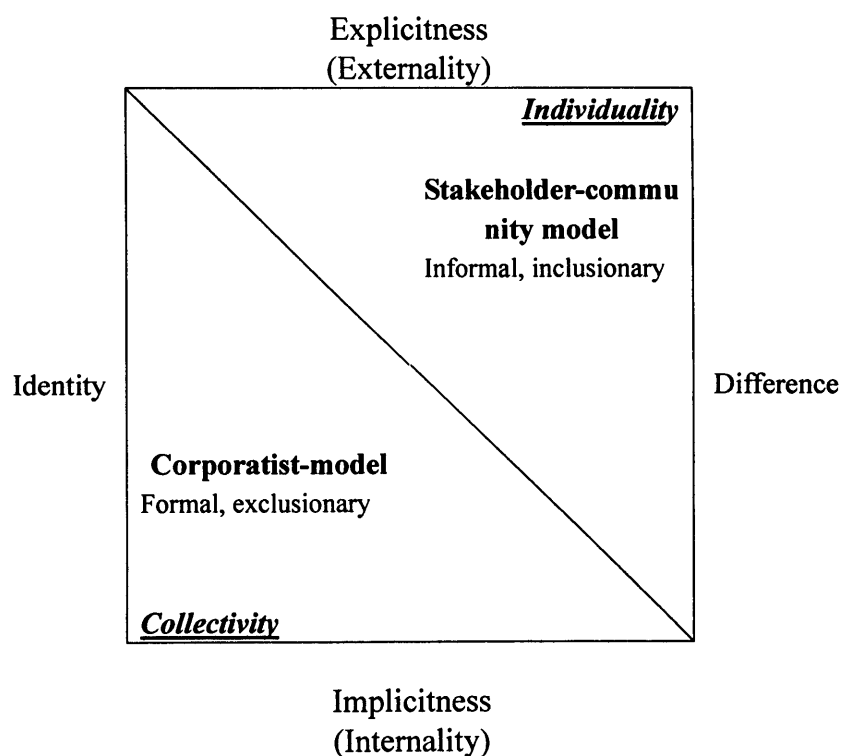


Figure5-5: Relationship between the stakeholder-community model and the corporatist-model (Source: Author)

### ***Analyzing the two models in terms of the linguistic theory***

The premise of the TEAM linguistic framework suggests that a (knowledge-creating) organization should be equipped with the strategic capability to acquire both *differentiated* and *identified* knowledge both *in explicit* and *implicit* forms, which should be both *externalized* and *internalized*. Using the (TEAM) linguistic framework, however, the stakeholder-community model becomes problematic because in this context, it is hard to acquire *identified* knowledge among changeable members and to internalize (accumulate) it as a collective knowledge. In other words, the stakeholder-community model seems to fail to understand the difficulty of building up consensus (being identified with others) among changing, unfitted members and of providing actual ways to construct it. The corporatist-model is also problematic because it is difficult to generate new ideas that *differentiate* from others and to express them explicitly (because of the rule-oriented bureaucratic culture). This suggests that the strategy-making in public policy should include both the abilities of internalizing (accumulating) identified knowledge (akin to the corporatist-model) and of externalizing diverse (different) knowledge (which the stakeholder-community model can generate). In other words, a combined or synthesized organizational structure model of the two can provide a solid base for sustainable and workable knowledge creation in an organization.

### ***Nonaka's cross-functional organization model within the TEAM framework***

It seems that Nonaka's assumption of the organizational structure for knowledge creation, referred to as the *cross-functional organization* (or the *micro-community of knowledge*), generates a *synthesized model* of the stakeholder-community model and the corporatist-model. This is because it balances the four linguistic elements of difference, identity, implicitness (internality) and explicitness (externality) (see Figure 5-5). According to Nonaka, the cross-functional organization brings together people from *different* units (or backgrounds), which can make a new knowledge *explicitly* generated and *externalized* as the stakeholder-community model highlights. Nonaka's

cross-functional organization, however, usually *fixes* its members until a task is completed, which enables the members' opinions to be *identified* as well as *internalized* (accumulated), which is in line with the corporatist model. This analysis in turn suggests that Nonaka's model includes advantages of both the corporatist and the stakeholder-community models, thereby reinforcing the weaknesses of both the models and providing perspective by *synthesizing* them. In other words, Nonaka's organizational structure model is more applicable than one of Communicative Planning even in the urban planning context in terms of facilitating the four linguistic elements in a balanced way.

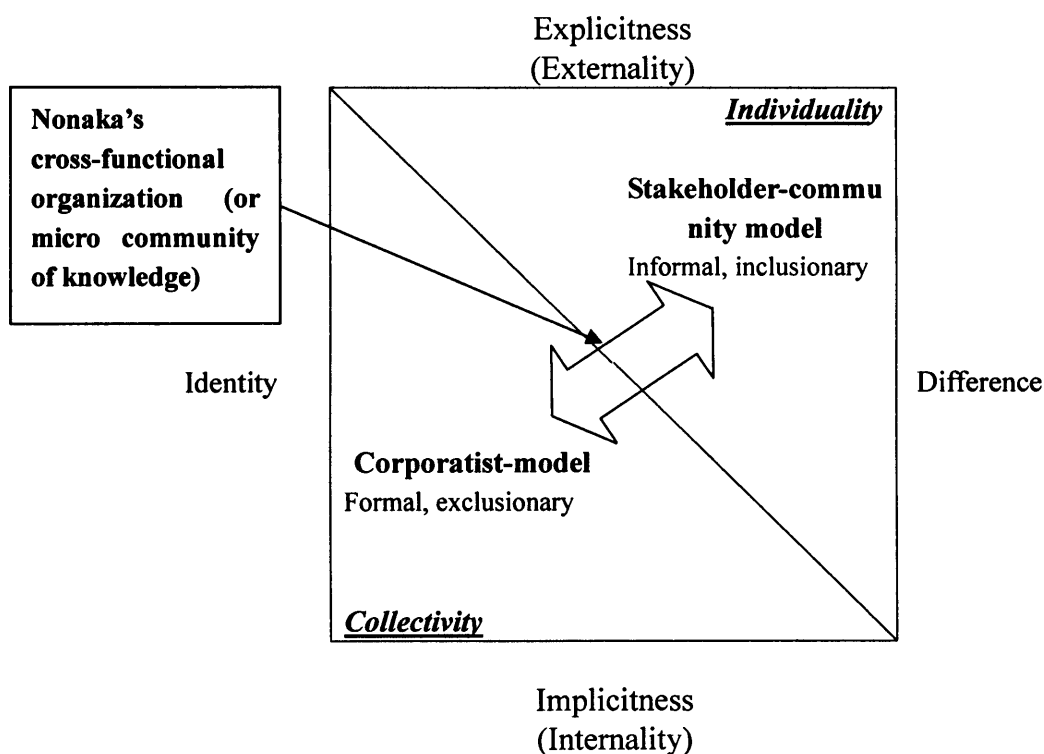


Figure5-6: Relationships among the stakeholder-community and corporatist models and Nonaka's cross-functional organization (Source: Author)

Here two questions emerge, that is, how Communicative Planning actually makes a plan based on the stakeholder-community model in practice, and what kind of procedure it follows. In order to make a close examination of the applicability of Nonaka's theory to the urban planning context, the next section investigates these questions, by looking at *Healey's practical guides for strategy-making activity* in relation to Nonaka's SECI model.

## **5.7 Examining Healey's guides for strategy-making activity in terms of Nonaka's five-phase model**

### **5.7.1 Introduction**

Healey (1997, Chapter 8) provides an account of a *procedural* guide to Communicative Planning in a practical sense.<sup>24</sup> When a theory is applied to the practical context, it typically employs a model. Healey, however, claims that there is not *a priori* process model of Communicative Planning and that any model should be locally invented and developed. She instead presents four 'guides' (see Tewdwr-Jones & Allmendinger, 2002) or 'questions' for strategy-making based on the theoretical assumptions of Communicative Planning; namely,

- Guidance on how to 'get started'
- Guidance on 'routines and styles of discussions'
- Guidance on 'making policy discourses' and
- Guidance on 'maintaining the consensus'

### ***Nonaka's five-phase model of organizational knowledge creation***

Nonaka, as introduced in Chapter 2 (see section 2.8), presents an integrated, five-phase model, which focuses on the *process* of organizational knowledge creation. Here Healey's four guides for strategy-making are compared with Nonaka's five-phase model in order to examine the applicability of Nonaka's theory to urban planning. Table 5-1 shows the comparison between Healey's four guides for strategy-making and Nonaka's five-phase model.

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<sup>24</sup> Healey's position is Collaborative Planning, which includes communicative and institutional approaches. Here Healey's four guides are seen to deal with the communicative, rather than institutional, aspect because strategy making is closely related to communicative action.

Table5-1: Comparison between Healey’s four guides for strategy-making and Nonaka’s five-phase model of organizational knowledge creation (Source: Author)

Healey’s four guides for strategy-making activity	Nonaka’s Five-phase model of organizational knowledge creation
1. Getting started Initiators, stakeholders, arenas (stakeholder-community)	(Forming a cross-functional team or micro community of knowledge (see the previous section)
2. Routines and styles of discussion	(Managing conversation) <sup>25</sup>
3. Making policy discourses Argumentative jumbling  Making a new discourse Analytical work	The first phase (Sharing tacit knowledge) The second phase (Creating concepts) The fourth phase (Building an archetype)
4. Maintaining the consensus	The third (Justifying concepts) & five phases (Cross-leveling knowledge)

Table 5-1 suggests that only Healey’s third and fourth guides approximate to all Nonaka’s five-phases in his model of organizational knowledge creation. It can be argued that Healey’s guides mix (and perhaps confuse) ‘process’ and other factors (such as the organizational structure) in strategy-making for urban planning. The following examines and analyzes more details of a *process* aspect of Healey’s four guides, namely, the third and fourth guides (more precisely, *making policy discourses* which includes *argumentative jumbling*, *analytical work* and *making a new discourse*, and *maintaining the consensus*) in relation to Nonaka’s five-phase model of organizational knowledge creation. In so doing, Figure 5-7 applies the process elements of Healey’s four guides for strategy-making activity to the integrated framework of the TEAM linguistic structure and Nonaka’s five-phase model of organizational knowledge creation developed in Chapter 2.

<sup>25</sup> More recently, Nonaka argues ‘managing conversation’, which is closely related to Healey’s guidelines on ‘routines and styles of discussion’. See von Krogh, Ichijo & Nonaka (2000).

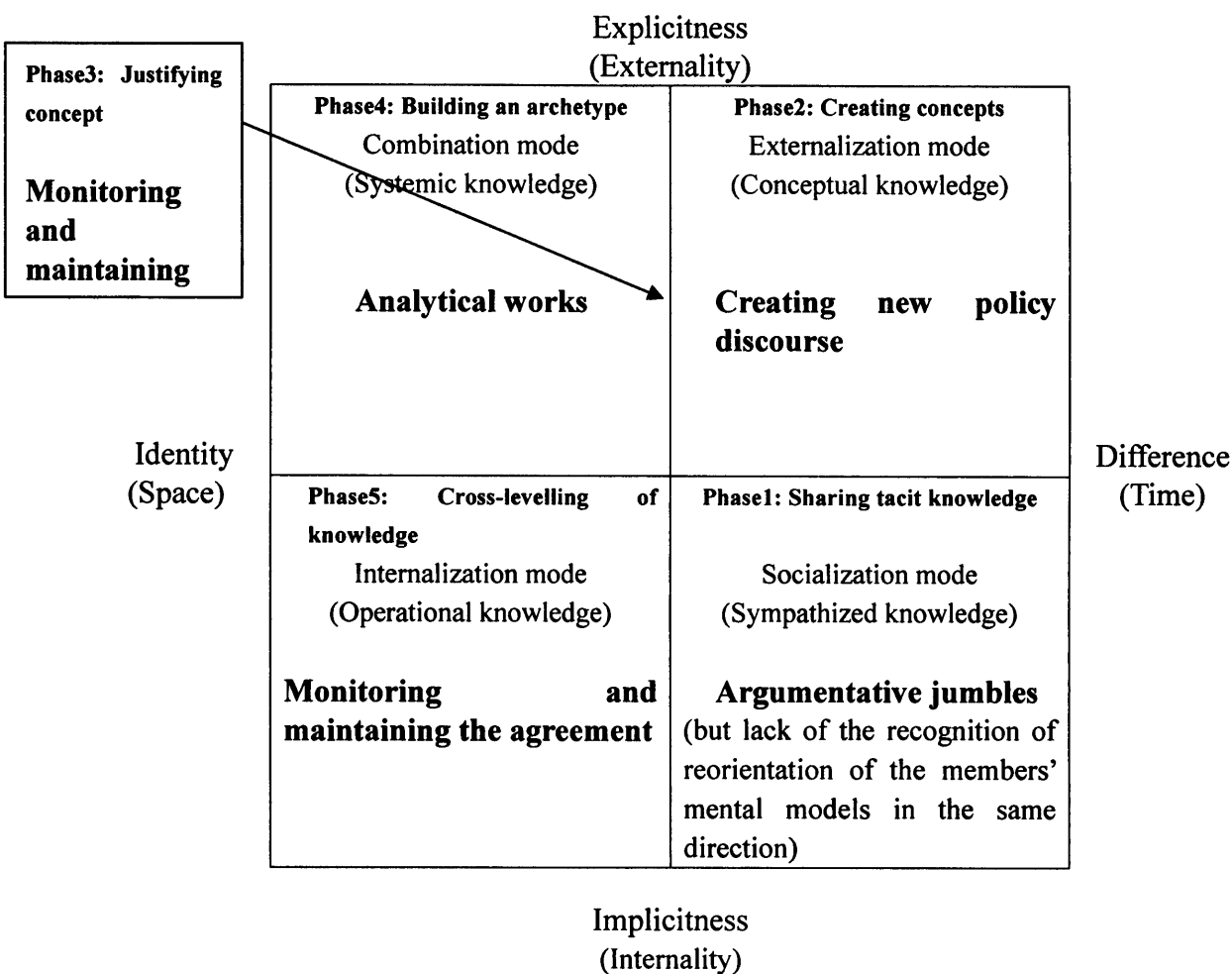


Figure5-7: Healy's guides for Communicative Planning within the integrated framework of the TEAM linguistic structure and Nonaka's five-phases model (Source: Author)

## 5.7.2 Healey's guides for strategy-making activity and Nonaka's five-phase model

### *Healey's Argumentative jumbles and Nonaka's theory*

Healey claims that inclusionary forms of argument (based on a stakeholder-community model) result in *argumentative jumbles* (mix-ups) of statement, which not only is a statement, but also includes participants' feelings, conceptions and perceptions. Such a phase of argumentative jumbles is akin to Phase 1 (sharing tacit knowledge) of the five-phase model of organizational knowledge creation in Nonaka's theory (see Figure 5-7). Nonaka uses as Phase 1 the example of Japanese companies that set up 'brainstorming camps', informal meetings for detailed discussions to solve difficult problems. What is different between Healey and Nonaka in this phase is that while Healey emphasizes the multiple and diverse dimensions of knowledge (resulting from



the emphasis on the inclusionary form of the argument), Nonaka highlights both convergent and divergent dimensions of dialogues, paying attention to the reorientation of the different mental models of all individuals in the same direction, but in a not forceful way. Seen from Nonaka's theory, at that stage, Healey lacks the perspective of (or at least fails to pay attention to the difficulty of) converging participants' feelings, conceptions, and perceptions.

### ***Healey's Analytical work and Nonaka's theory***

Healey also points out a need for *analytical work* through which the argumentative jumble (mix) of statements is translated into technical language. This is akin to *building an archetype* of Phase 4 (the combination mode) of Nonaka's five-phase model in emphasising the *explicit*, technical dimension of knowledge (language) (see Figure 5-7). In this phase, Nonaka assumes that an archetype is built by creating *systemic knowledge* through combining newly created explicit knowledge with existing explicit knowledge in a technical and explicit way.

### ***Creating a new policy discourse in Healey's guides and Nonaka's theory***

To reach some agreement in inclusionary strategy-making, Healey pays attention to the possibility of *creating new policy discourse*, defining the term 'discourse' as 'a system of meaning embodied in a strategy for action and expressed in concepts, metaphors and a storyline' (Healey, 1997, p277). Drawing on studies of environmental issues, she argues that new understanding or concepts result in creating new policy discourse, which performs the critical transformative work. This phase is consistent with 'creating concepts' (the externalization mode) of Phase 2 of Nonaka's five-phase model (see Figure 5-7). In this sense, Healey recognizes the strong impact of creating new concepts in the urban planning context, as Nonaka did in business organizations. What is different in the perspective of 'creating concepts' between Healey and Nonaka is that Healey looks at both negative and positive aspects in creating concepts while Nonaka pays attention only to the positive aspects. Healey (1997) argues that creating new policy discourse in the form of concept-creation is both the most important and

dangerous part of the process in that there is a danger that creating concepts causes uneven and unequal results among citizens, that is some suffer more others benefit. She therefore emphasizes the pursuit of cautious policy making exercises to reduce negative powers.

### ***Maintaining the consensus in Healey's guides and Nonaka's theory***

*Monitoring and maintaining the agreement* as Healey's guides for strategy making seem close to phases 3 & 4 of Nonaka's five-phase model (see Figure 5-7). Healey (1997) emphasizes the importance of *monitoring and maintaining the agreement* that is made by stakeholder-communities through processes of strategy-making because agreements or consensus will always pose a disadvantage, in some cases as situations change, new stakeholders appear and new fractures appear among them. To address such negative or unfair results arising from the implications of strategy-making, Healey suggests the importance of continual reflective critique as a means of monitoring. Unlike Healey, Nonaka incorporates the *justification* process (of concepts) in Phase 3 of the five-phase model and Nonaka also emphasises amplifying knowledge created and crystallized through the previous phases and moving onto new cycles of knowledge creation (at different ontological levels), rather than monitoring continuously. He places this interactive and spiral process of the 'cross-leveling of knowledge' the fifth in the five-phase model. Again, it is clear that Nonaka focuses on the positive aspect of knowledge and power while Healey sees more negative aspects and is careful to promote equality.

### **5.7.3 Conclusions**

The above comparison suggests that all process aspects of Healey's guides for Communicative Planning roughly correspond to Nonaka's five-phase model. In other words, at the practical guidance level, they have considerable similarities in their perspective of policy-making processes. This also suggests that although Healey claims that strategy-making activities are undertaken in parallel rather than sequentially, there is a possibility that Healey's guides for strategy-making activities could be reconfigured

into Nonaka's sequential five-phase model, which is based on solid linguistic foundations, if different social views such as social justice and equality are considered.

### 5.8 Generic conclusions and implications for urban regeneration

This chapter (as well as the previous chapter) has attempted to answer the question of whether Nonaka's theory is theoretically applicable to urban regeneration by using Communicative Planning as the material for examination and largely by utilizing the integrated framework of the TEAM linguistic structure and Nonaka's SECI model as criteria. In other words, the theoretical part of Hypothesis 2 has been examined. Table 5-2 summarises the findings of the preceding examination.

Table5-2: Relationship between Nonaka's theory and Communicative Planning (Source: Author)

		Communicative Planning	Nonaka's theory
Epistemology		Focused more on tacit-based knowledge (local knowledge) (monistic)	Tacit & explicit knowledge (dualistic)
Ontology		Collective (or intersubjective) (monistic)	Both individual & collective (dualistic)
(Saussure's dualism)		Langue	Parole & Langue
Organizational structure (Arena)		Stakeholder community (inclusionary in nature)	Cross functional organization (or micro-community of knowledge) (both with inclusionary and exclusionary natures)
Main Aim		Building consensus	Creating new knowledge
Nishibe's social languages	Money (Technical calculation)	Communicative rationality (or consensus-building)	Combination mode
	Power (Decision)	Weak (empowerment)	Externalization mode
	Role (Conventional repetition)	More recently concerned in a practical context (social capital)	Socialization mode
	Value (Symbolic meaning)	Concerned only in a practical context (institutional capacity)	Internalization mode

### ***Limitations of the concept of communicative rationality***

The preceding examination has clearly identified that from the perspective of the TEAM linguistic theory, Communicative Planning is fundamentally narrow in its theoretical supposition. *Communicative rationality* (and consensus building) as a main concept of Communicative Planning corresponds only to half of one of the four linguistic meaning functions (or *Money* in the four social languages) in the TEAM linguistic framework. In other words, the pursuit of communicative rationality tends to ignore the other aspects of the linguistic meaning functions or social languages which human beings inevitably rely on in their activities. As a result (seen from linguistic theory), Communicative Planning would become not only unrealistic and utopian in functioning as a theory for real life planning practices, but also oppressive, confined and disconcerting. The preceding analysis has also identified that more recently, by the recognition of the limitations from Communicative Planning theorists themselves, Communicative Planning has tended to abandon (or at least highlight less) the fundamental foundation of communicative rationality, which resulted in the loss of theoretical consistency. Nonaka's SECI model based on the four modes of knowledge conversion, on the other hand, is consistent with the TEAM linguistic framework.

### ***Epistemological and ontological limitations in Communicative Planning***

The above narrow theoretical supposition reflects the epistemological and ontological positions Communicative Planning takes. The preceding analysis has identified that the basis of Communicative Planning is epistemologically and ontologically *unbalanced* and *monistic*, rather than *dualistic*, in its theoretical foundation. Regarding epistemology, due to the heavily reliance on citizens' local (tacit) knowledge, Communicative Planning fails to adequately acknowledge the important role of (explicit) technical knowledge in particular. Regarding ontology, because of the heavily reliance on collectivity (inter-subjectivity), Communicative Planning also fails to adequately acknowledge the significance of roles of individuals. Nonaka's theory, on the other hand, takes a *dualistic* stance of both epistemology (tacit and explicit knowledge) and

ontology (individuality and collectivity) balancing both.

### ***Identification of various types of knowledge and their limitations in Communicative Planning***

The preceding examination has also identified that although Communicative Planning, unlike Systems Theories and Rational Theories of Planning, has paid a great deal of attention to the importance of not one, but various types (or characters) of knowledge in policy-making in urban planning, it has not reached how such diverse types of knowledge theoretically relate to each other and how the types of knowledge are utilized in the process of (organizational) knowledge creation. Nonaka achieved this by providing his SECI model, which can incorporate the types of knowledge identified by Communicative Planning into his model with a solid linguistic foundation.

### ***Limitations of organizational structure in Communicative Planning***

The stakeholder-community model as an organizational structure assumed in Communicative Planning is problematic in terms of the TEAM linguistic framework. It is hard to reach an *identified* horizon of knowledge and to *internalize* (accumulate) it as a collective knowledge base because of the heavy emphasis on inclusivity in a structure with unfitted and changeable members. In contrast, the organizational structure of the *cross-functional organization* in Nonaka's theory seems to balance the four linguistic elements of *difference*, *identity*, *implicitness (internality)* and *explicitness (externality)*. This analysis has suggested that Nonaka's model includes the advantages of the stakeholder-community model and overcomes the weakness by providing a more balanced organizational structure.

### ***The close connection between Communicative Planning and Nonaka's theory at the level of practical guidance***

The preceding analysis has, however, identified that there are close connections and similarities between Communicative Planning and Nonaka's theory at the level of practical guidance (or the practical model). The comparison of Healey's guides for the

processes of strategy-making with Nonaka's five-phase model has identified that all process aspects of Healey's guides roughly correspond to the five phases in Nonaka's five-phase model, which is related to the four knowledge conversion modes. This suggests that there is a possibility that Nonaka's sequential five-phase model of organizational knowledge creation is applicable in the practical context of urban planning if it incorporates some important public issues, such as the notion of social equality or justice, into the model.

By taking all these factors into consideration, it can be concluded that Nonaka's theory is more applicable than Communicative Planning, even to the theoretical context of urban planning. It provides a more consistent and comprehensive theoretical framework for knowledge activities and accounts for how new knowledge is actually created in an organization and the main concepts of Communicative Planning can be incorporated into this framework. The preceding chapter has also identified that Communicative Planning cannot examine the conditions that facilitate the process of social (organizational) knowledge creation, which Nonaka does by providing the five organizational conditions. The applicability of Nonaka's five organizational conditions to urban regeneration will be examined in the next chapter.

### ***Contribution of this chapter***

The preceding analysis of the applicability of Nonaka's theory to the urban regeneration context has a limitation in its approach because Communicative Planning is not an urban regeneration theory, but relates to an urban planning. However, if as argued earlier, Communicative Planning provides the theoretical rationale to the collaborative (public-private) partnership approach to urban regeneration, then the contribution of this chapter to this thesis is fourfold. Firstly, this chapter identified the limitations of Communicative Planning in terms of the knowledge used in the theory, that is, the narrowness of the notion of knowledge used in Communicative Planning, situating it within the TEAM linguistic framework. This suggests the limitations of the treatment of knowledge used in the collaborative partnership approach to urban regeneration.

Secondly, the chapter identified that Communicative Planning tends to be *epistemologically* tacit and *ontologically* collective in nature. This suggests that the collaborative public-private partnership approach to urban regeneration will also have limitations in its narrow epistemology and ontology and that an alternative theoretical foundation for urban regeneration can be based on both an epistemologically *dualistic* structure (of tacit and explicit knowledge) and an ontologically *dualistic* structure (of the individual and collective knowledge). Thirdly, this chapter suggests that Nonaka's theory is superior to Communicative Planning in that it has both an epistemologically *dualistic* structure and also an ontologically *dualistic* structure. This in turn implies that Nonaka's theory may be more applicable, even to the procedural (organizational) context of urban regeneration, in its theoretical premise, complementing the epistemological and ontological weakness of the public-private partnership approach to urban regeneration and offering a comprehensive framework for knowledge activities. Finally, this chapter may contribute to making progress in urban regeneration studies, if the collaborative public-private partnership approach to urban regeneration admits and tries to overcome the limitations identified in this chapter.

The next chapter examines the applicability of Nonaka's theory of organizational knowledge creation to the *empirical* context of urban regeneration in the UK.

## **CHAPTER 6: AN EXAMINATION OF THE APPLICABILITY OF NONAKA'S THEORY IN THE EMPIRICAL CONTEXT OF UK URBAN REGENERATION: A CASE STUDY OF THE CREATIVE TOWN INITIATIVE IN HUDDERSFIELD**

### **6.1 Introduction**

There has, as discussed in Chapter 1, been little empirical (or theoretical) research which has focused on 'knowledge' and 'knowledge creation' in the context of (strategy-making for) urban regeneration in the UK, where public-private partnerships are widespread. In an attempt to contribute to filling this gap, this chapter aims to examine the applicability of Nonaka's theory of organizational knowledge creation to the *empirical* context of urban regeneration in the UK. In other words, the empirical part of Hypothesis 2 proposed in Chapter 1 will be examined. In so doing, three main areas are to be considered in this chapter. Firstly, the methodological approach adopted in this research is discussed (in section 6.2). This discussion heavily draws upon Yin's (2003) work on case study methodology. Secondly, based on the methodology presented, the empirical research is conducted (in section 6.3). Finally, conclusions will be drawn on the basis of evaluating the applicability of Nonaka's theory to urban regeneration in the UK (in section 6.4).

### **6.2 Research methodology**

#### **6.2.1 The research theme and approach**

##### ***Empirical research theme***

The methodology is designed to examine (test) the second hypothesis outlined in Chapter 1; namely, that:

*Nonaka's theory of organizational knowledge creation can be applied to organizations engaged in policy-making, planning & management for urban regeneration in the UK in both theory and practice.*



In the previous chapters, namely in Chapters 4 & 5, the applicability of Nonaka's theory in the *theoretical* context of urban regeneration has been examined by using two sets of urban planning theories instead of urban regeneration literature. In this section, the focus of the examination is on the *empirical (practical)*, not the theoretical, context of urban regeneration.

### ***Types of social science research and their relevant situations***

There are a number of ways of carrying out social science research.<sup>1</sup> Yin (2003) provides three sets of criteria or conditions when selecting the most appropriate social science research method (strategy); namely, (1) the type of research question, (2) whether or not an investigator has control over actual behavioural events, and (3) whether the focus is on contemporary or historical phenomena.<sup>2</sup> Table 6-1 shows relationships between types of social science research methods and their relevant situations.

Table6-1: Relationships between types of social science research and their relevant situations (Source: COSMOS Corporation, cited from Yin, 2003)

Method (Strategy)	Form of research question	Requires control of behavioural events?	Focuses on contemporary events
Experiment	how, why?	Yes	Yes
Survey	who, what, where, how many, how much?	No	Yes
Archival analysis	who, what, where, how many, how much?	No	Yes/No
History	how, why?	No	No
<b>Case Study</b>	<b>how, why?</b>	<b>No</b>	<b>Yes</b>

### ***Justification for taking a case study approach***

The author has taken the view that the case study method is suitable (1) when *how and why questions* are being posed (this is because such questions deal with operational

<sup>1</sup> These include experiments, surveys, histories, case studies, ethnography (fieldwork), action research, archival information and official statistics analyses (Robson, 1993; May, 2001; Yin, 2003).

<sup>2</sup> According to Yin (2003), although a certain method (strategy) is suitable in certain situations, the various methods are not mutually exclusive and therefore, multiple methods are used in any given research (e.g. a survey within a case study or a case study within a survey).

links needing to be traced over time, rather than mere frequencies or incidence), (2) when the researcher has *little control* over events, and (3) when the focus is on a *contemporary* phenomenon within a real-life context. Yin's three sets of criteria strongly support a case study approach in this research. Firstly, Nonaka's theory is concerned chiefly with the mechanism or processes of *how* (new) knowledge is created in a team or an organization and therefore this empirical research inevitably has to focus on the *how-form* question in the strategy-making process in urban regeneration. Secondly, it is very apparent that unlike experimentation, strategy-making processes in urban regeneration *cannot be controlled* by a researcher. Thirdly, the focus of research is on a *contemporary* urban regeneration issue that is embedded within certain real-life contexts. Given this, it was deemed appropriate to select a case study method in order to address this research question.

### ***Definition of the case study***

As most social science textbooks on research methods seem to fail to consider the use of the case study as a formal (scientific) research method, therefore, few researchers define the case study as a particular method (see e.g. Kidder & Judd; 1986; Nachmian & Nachmian; 1992; Sato, 1999; May, 2001).<sup>3</sup> The case study is defined by an interest in individual cases and less by the methods of inquiry used (see Stake, 1994, p236). There is, however, an exception, to this trend. Yin (2003) regards case study research as a social science research method that provides a sequential logic from research design to research methods. This author defines a case study as an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context (cf. History);
- is concerned with situations which cannot separate a phenomenon from its context (cf. an experiment that focuses attention only on a few variables);

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<sup>3</sup> One common account of the case study is to view it in either ethnographic or qualitative research (as a data collection technique). Another common flaw is to place case studies at the exploratory (rather than explanatory) stage of some other type of research methods.

- is a comprehensive research method that relies on multiple sources of evidence (which may include both qualitative and quantitative evidence); and
- uses a number of approaches depending on the research purpose (these include explanatory or casual case studies, descriptive case studies and exploratory case studies) (Yin, 2003, p12-14).

The case study is, in other words, a way of investigating an empirical topic that relies on multiple sources of evidence acquired through both (or either) quantitative and (or) qualitative methods to cope with a distinctive context in which there are far more areas (variables) of interest than quantitative research can identify. The empirical research presented here follows this definition of the case study.

## 6.2.2 Research design of the case study

### *Selection of a type of case study*

In designing an empirical research programme, a decision has to be made as to whether a single case study or multiple cases will be conducted. Yin (2003) presents four types of case study designs (based on a four-fold matrix) (see Figure 6-1).<sup>4</sup>

	Single-case designs	Multi-case designs
Holistic (single-unit of analysis)	Type1	Type3
Embedded (multiple-units of analysis)	Type 2	Type4

Figure6-1: Basic types of design for case studies (Source: Yin, 2003)

Yin also claims that the single case can be used to determine whether a theory's propositions that are being examined (tested) are correct (on the basis of the empirical evidence established by the research) or whether alternative sets of explanations might

<sup>4</sup> This matrix is coordinated by axes, one regarding *single-case designs* / *multiple-case designs* and the other regarding *holistic* (single unit of analysis) / *embedded* (multiple units of analysis) (see Figure 6-1). The matrix generates four types of designs for studies, which are single-case holistic designs (Type1), single-case embedded designs (Type2), multi-case holistic designs (Type3), and multi-case embedded designs (Type4).

be more relevant. Another rationale for the single case, according to the author, includes an extreme (or unique) case. As mentioned earlier, the aim of this research is to examine the applicability of the *theoretical propositions* of Nonaka's theory to the urban regeneration context. The strategy planning practice for urban regeneration that focuses on knowledge creation seems *rare (unique)*. Given the focus of the proposed research, it was deemed appropriate to take a *single case holistic approach*.

### ***Criteria for selecting a case***

Having defined the type of case study as a single case holistic design and based on examination of knowledge activities in both the contexts of urban planning and knowledge management discussed in previous chapters, the criteria to select a case in this research were set up as follows;

- The extent that *knowledge-creation*, rather than knowledge-diffusion would be generated in a strategy-policy making process in urban regeneration.
- The extent that some measure of success of employment creation is achieved (indicative of its capability to create knowledge)

Based on the above criteria and from a practical standpoint, the *Creative Town Initiative (CTI)* in Huddersfield was considered to offer the required scope.

### ***The Creative Town Initiative as a case study site***

The *Creative Town Initiative (CTI)* in Huddersfield is, as its name suggests, characterised by its emphasis on citizen's *creativity*<sup>5</sup> as a method of addressing urban problems (KMC, 1996). The premise of CTI is that 'as we approach the 21<sup>st</sup> century, there is a widespread understanding that it will be the creativity and innovativeness of

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<sup>5</sup> CTI does not seem to clearly define 'citizen's creativity'. However, in the proposal document (CTI, 1996, p3), CTI claims 'Today towns and cities like Huddersfield only have one crucial resource - their people: their cleverness, ingenuity, aspirations, motivations, imagination and creativity'. In this sense, 'citizen's creativity' seems to mean the potential power of citizen's thinking and ideas, which can solve urban problems.

our towns and cities that will determine their future success' (KMC, 1996, p3). As already discussed in Chapter 1, creativity and knowledge-creation are similar concepts; CTI obviously focuses on knowledge-creation rather than knowledge-diffusion (the best-practices). By proclaiming the importance of the innovative approach to urban regeneration in its proposal, CTI was chosen as one of the winners of a competition held by the European Commission and awarded 3 million ECU (see CTI, 2002). By conducting the project, CTI created 168 new jobs while safeguarding an existing 396 (see CTI 2002). Moreover, it was estimated that under this scheme 6,476 people received some form of training or special educational experience, ranging from classes in creative thinking through to advanced qualifications. 67 new businesses started up (see CTI, 2002). Given this, it was deemed appropriate to select CTI as a case study site.

### ***Defining a unit of analysis***

The *unit of analysis* may be defined in terms of the *time* and *space* boundaries of the research (see Yin, 2003). Although the research focuses on the process of the CTI proposal, taking into account that organizational knowledge creation is not an event, but sequential events in a group(s) or organization(s), which take a historical, temporal perspective, it was decided to look at both pre and post events of the CTI proposal. In this context, the *time* boundary was defined as the period from the origin of CTI to after its implementation, with the focus on proposal-making of CTI. In relation to the time boundary, the *space* boundary was defined as people and organizations engaged in from pre- to post events of CTI, again focusing on the proposal-making of CTI in Huddersfield.

### **6.2.3 Methods of data collection**

#### ***Theoretical propositions***

One of the methods of collecting data is to *follow the theoretical propositions* that enable a researcher to have a certain direction in collecting data. The integrated framework of the TEAM linguistic structure and Nonaka's five-phase model of

organizational knowledge creation provided the case study’s theoretical propositions, which incorporates the four modes of knowledge conversion (i.e. the socialization, externalization, combination and internalization modes) (see Figure 6-2).<sup>6</sup>

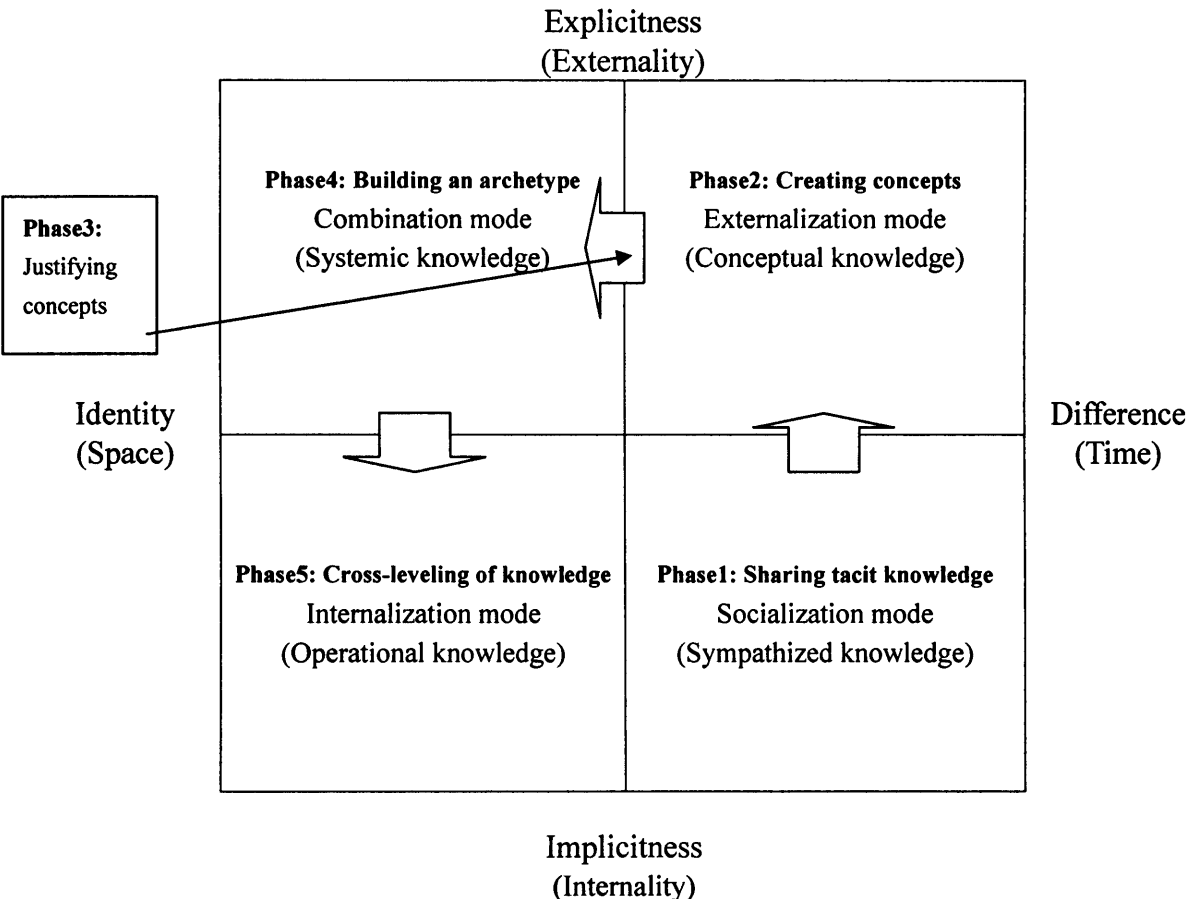


Figure6-2: Integrated framework of the TEAM linguistic structure and Nonaka’s five-phase model (Source: Author)

The five conditions which Nonaka assumes facilitate organizational knowledge creation (i.e. *organizational intention, autonomy, fluctuation / creative chaos, information redundancy and requisite variety*) (see section 2.7) were also regarded as the theoretical prepositions to be followed during data collection for the case study (see Table 6-2).<sup>7</sup>

<sup>6</sup> This integrated framework of the five-phase model and the TEAM linguistic structure has developed in Chapter 2 (Figure 2-13) and utilized in Chapter 5 (Figure 5-7) and its modified framework has also been utilized through this thesis (See e.g. section 3.2.3, 3.4 & 4.5).  
<sup>7</sup> These concepts have been utilized in Chapter 3 (Section 3.4.5) and Chapter 4 (section 4.4)

Table6-2: Nonaka's five organizational conditions (Source: made by Author based on Nonaka & Takeuchi (1995))

<b>Five conditions for knowledge creation</b>	<b>Meanings (related notions)</b>
<b>Organizational intention</b>	An organization's aspiration to its goal (Strategy, knowledge vision & justification criteria)
<b>Individual and group autonomy</b>	Autonomy at the individual and group levels, which provides individuals with the chance of introducing unexpected opportunities and a group with greater flexibility (Self-motivation & self-organizing teams)
<b>Fluctuation / creative chaos</b>	A chance that is hard to predict, which provides organizational members with opportunities to reconsider their basic mindsets and to provide a sense of crisis ('Breakdown' of routines, habits, or cognitive frameworks)
<b>Informational redundancy</b>	The existence of information that goes beyond the immediate operational requirements of organizational members (Intentional overlapping of information & loosely-connected individuals)
<b>Requisite variety</b>	A minimum in terms of organizational integration and at the same time a maximum for effective adaptation to environmental change (Internal diversity & a minimum for organizational integration)

### ***Using multiple sources of evidence***

Compared with other methods of data collection (such as experiments, surveys or histories), one of the strengths of case study research in collecting data is the use of *multiple sources of evidence*, which includes documents, archival records, interviews, direct observation, participant-observation and physical artefacts. The use of multiple sources of evidence in the data collection process has at least two advantages. Firstly, it enables a researcher to address a broader range of historical, attitudinal, behavioural and organizational issues (Yin, 2003), which have to be dealt with in the type of empirical research presented here. Secondly, this can provide multiple evidence or measures of the same phenomenon (Yin, 2003). In other words, when the events or facts of the case study have been supported by multiple sources of evidence, then any findings or

conclusions are likely to be much more convincing and accurate in terms of their overall quality.<sup>8</sup> Given this, the empirical research presented paid close attention to the use of multiple sources of evidence.

### ***Sources of data: In-depth interviewing***

One of the most rewarding sources of collecting data in this type of qualitative empirical case study research is the *in-depth interview*, which provides rich insights into people's experiences, opinions, values, aspirations, attitudes and feelings (May, 2001), which are essential for this research. Given its nature, the majority of empirical material was collected through *focused interview technique* and supported by *semi-structured (open-ended) techniques*. *Focused interview* is the method of collecting data in terms of the research question (that is, on the basis of the theoretical propositions). Respondents can be asked about the facts of a matter as well as their opinions about events. A set of questions are derived from the case study propositions in order to corroborate certain facts. *Semi-structured interview* is conducted in such a way as to provide the interviewee (or informant) with latitude in order to provide information that may not have been anticipated by the interviewer, potentially enriching interpretative analysis. This technique provides qualitative depth by allowing interviewees to talk about the subject within their own framework (May, 2001).

In this research, interviewees, as will be discussed later, include key representatives of the CTI. Every interview cannot be considered of equal value to the research because key interviewees are often critical to the success of case study research (Yin, 2003).<sup>9</sup> It, however, should be noted that to avoid over-dependence on key interviewees, case studies should use other sources of evidence which can corroborate the data collected from the key interviewees. Although basic questions (and thus questionnaires) were

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<sup>8</sup> There has been a certain amount of criticism of the use of case studies and this includes claims that a case study researcher 'subjectively' collects the data, failing to develop a sufficiently operational set of measures. The introduction of the linguistic approach to the hypothesis-formulation (see Chapters 1 & 2) may address such potential problems of *validity*.

<sup>9</sup> The key interviewees not only provide the case study researcher with insights into a variety of matters, but also may initiate access to additional important sources.



generated along the theoretical propositions posed by the researcher (see Figure 6-2, Table 6-2), they were amended on an interviewee by interviewee basis because each member of CTI was deemed to play different roles and to have other important areas of information in knowledge creation invaluable to the strategy-making processes (which may be considered ‘focused interviews’).

### ***Sources of data: Documents***

Document information, which takes many forms (such as letters, written reports of events and administrative data), is most likely to be relevant for case study work. However, many academics have been suspicious of the heavy use of such documents in social research (May, 2001) and in case study research in particular (Yin, 2003). This is likely to be because the casual researcher may mistakenly assume that all kinds of documents contain the unmitigated truth, without considering that such documents were written for some specific purpose and/or specific audience. Documentary evidence, therefore, should be used cautiously. One of the most prudent methods of using documentary evidence is to corroborate and enhance evidence from other sources. Documentary evidence also helps the researcher to make ‘in-depth’ questionnaires on particular events on a person-by-person basis. Moreover, it leads one to make inferences, which may provide clues worthy of further investigation. Based on the kind of awareness and purposive use outlined above, documentary evidence for this research was collected from sources such as the web site of the CTI (<http://www.huddersfieldpride.com/archive/cti/ctimain.htm>), *Huddersfield: Creative Town Initiative*, a proposal of CTI (KMC, 1996), annual and final reports, a document on the CTI written by Landry (2000) and a pre-conference reader ‘*The Creative City*’ (also see references).<sup>10</sup>

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<sup>10</sup> Regarding other sources of data, as an archival record (which may also be useful in case study research), reports on the *Creative City Conference 25<sup>th</sup> –27<sup>th</sup> May 2000* were collected for this case study. Physical or cultural artefacts (such as a technological devices, tools or instruments, built environments or some other physical evidence) as other sources of evidence have less potential relevance to the case study in question owing to the research focus on the process of strategy-making. Although 4,117 square metre areas which were made up of derelict industrial and commercial

### ***Data collection procedure***

The researcher first contacted the manager of CTI (Mr. Phil. Wood) at the time of the study, to ask him to send a set of the most important written documents relating to CTI since its conception and to list people who were most active in the process of creating the CTI proposal, together with details of the stakeholders. In October and November 2003, based on the information provided, 9 stakeholders who agreed to meet up with the researcher met on a face-to-face basis. This included the manager of CTI, an Economic Development Officer in the Council, the Director of the Media Centre, the Director of Beaumont Street Studio (representing the voluntary sector), the Director of ARTIMEDIA (a private media company), the Director of Huddersfield Pride (an urban regeneration organization in Kirklees), the Director of the Creative Industries Development Agency (CIDA), the Assistant Head of the Cultural Services in KMC, a Professor of Entrepreneurship at the University of Huddersfield's Business School (prof. John Thompson) and the Manager of Business Generator (a Business Incubator) (see Appendix 1). All interviewees were conducted with tailor-made questionnaires given prior to the interviews in order to demonstrate the nature of the questioning, and potentially provide interviewees with an opportunity to prepare their answers. Appendices 2, 3 and 4 provide examples of each kind of interview (questionnaire) used in the case study. Wherever possible, interviews were recorded because using recording devices provides a more accurate rendition of any interview than any other method and the tape-scripts were transcribed. These interviews are cited in the case study research and quotations employed. Additional documents related to CTI were also collected when the interviews were conducted.

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property and were renovated by implementing CIT projects, are important physical artefacts, they are not deemed to be of prime concern.

#### **6.2.4 Methodology of data analysis**

Analysing evidence can prove to be a difficult part in the qualitative research process in general and case study research in particular because the methods and techniques for this purpose have not been well established (Tao & Wakabayashi, 2001). Yin (2003), however, provides some general analytical strategies in analysing case study data, which can assist a researcher to treat the evidence fairly, produce compelling analytical conclusions, and rule out alternative interpretations. One such strategy is the *pattern-matching technique* which is a way of relating the data to the propositions that aim to compare an empirically based pattern with a predicted one. The pattern-matching technique is utilized here in the illustration of Nonaka's theory using CTI in Huddersfield, which compares the theoretical propositions presented with the empirical facts established by the case study.

#### **6.2.5 Generalisability of the research and limitations of case studies**

As argued above, there is considerable cause for concern about the lack of rigour in case study research. This is partly because on many occasions, the case study researcher does not establish a systematic procedure and partly because case study research is inherently influenced by biased views which impact the direction of its findings (Yin, 2003). It has therefore been argued that the result of a case study cannot be generalizable.<sup>11</sup> Given this criticism, it is crucial here to consider how a single case can lead to generalization.

Whilst acknowledging the inherent limitations of the case study research presented here, the major findings derived from this research are expected to have resonance to other 'knowledge-creating, proposal making' in the urban regeneration context. This is because a case study may be generalizable to theoretical propositions and not to populations or universes based on sampling techniques. In other words, theory development is the level at which the generalization of the case study results will occur. In this instance the role of theory has been characterized as *analytic generalization* and

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<sup>11</sup> It is true that a single case (or multiple cases) is not chosen based on statistical procedure such as a sampling technique.

contrasted with another way of generalizing results, known as *statistical generalization* (see Yin, 2003). Although this particular piece of research does not aim to achieve statistical generalization by using statistically rich data and enumerating frequencies with a large number of samples, it does aim to expand and generalize the relevancy / applicability of Nonaka's theory to the UK urban regeneration context (which constitutes an analytic generalization). Moreover, it has to be acknowledged that the results of this research could be further refined by conducting additional case studies in similar urban regeneration contexts to further test the conclusions reached.

Table6-3: Design of the case study research

<b>Aim of proposed empirical research here</b>	To examine the applicability of Nonaka's theory to the practical context of urban regeneration in the UK in the form of illustration
<b>Research method employed</b>	Case study research
<b>Type of design for the case study</b>	Holistic single-unit of analysis
<b>Selected research site</b>	Creative Town Initiative (CTI) in Huddersfield
<b>Unit of analysis</b>	<b>Time:</b> The period from the origin of CTI to post-CTI with the focus on the CTI proposal making <b>Space:</b> Focuses on people and organizations engaged in the CTI proposal making and pre and post events of CTI
<b>Main sources of data</b>	In-depth interviews (see Appendices 2, 3 & 4) and documents (see References)
<b>Principle of data collection</b>	Following <i>the theoretical propositions</i> (The integrated framework of the TEAM linguistic structure and Nonaka's five-phase model of organizational knowledge creation and his five conditions for organizational knowledge creation) (see Figure 6-2 & Table 6-2). Using multiple sources of evidence (triangulation)
<b>No. of interviews</b>	9 (see Appendix 1)
<b>Av. length of interview</b>	1-2 hours
<b>Methodology of data analysis</b>	Pattern matching technique in the form of illustration of Nonaka's theory (relating the empirical facts to the propositions)
<b>Generalisability</b>	Analytic (not statistical) generalization

## 6.3 Examining the applicability of Nonaka's theory to UK urban regeneration: A case study of the Creative Town Initiative in Huddersfield

### 6.3.1 Placing the Creative Town Initiative in Huddersfield in context

#### *Geographical overview*

Before examining the application / relevance of Nonaka's theoretical framework to urban regeneration through the Creative Town Initiative (CTI) in Huddersfield, the context within which Huddersfield, and CTI in particular, have developed are described. Huddersfield is located midway between the major cities of Leeds and Manchester and is just north of Sheffield (see Figure 6-3 & Figure 6-4). Its administrative centre is Kirklees, which is the third largest Metropolitan District in West Yorkshire and the seventh largest of the 36 Metropolitan Districts in the country and the largest district not based in a major city (see CTI, 1996; KMC, 2002).



Figure6-3: Location of Huddersfield

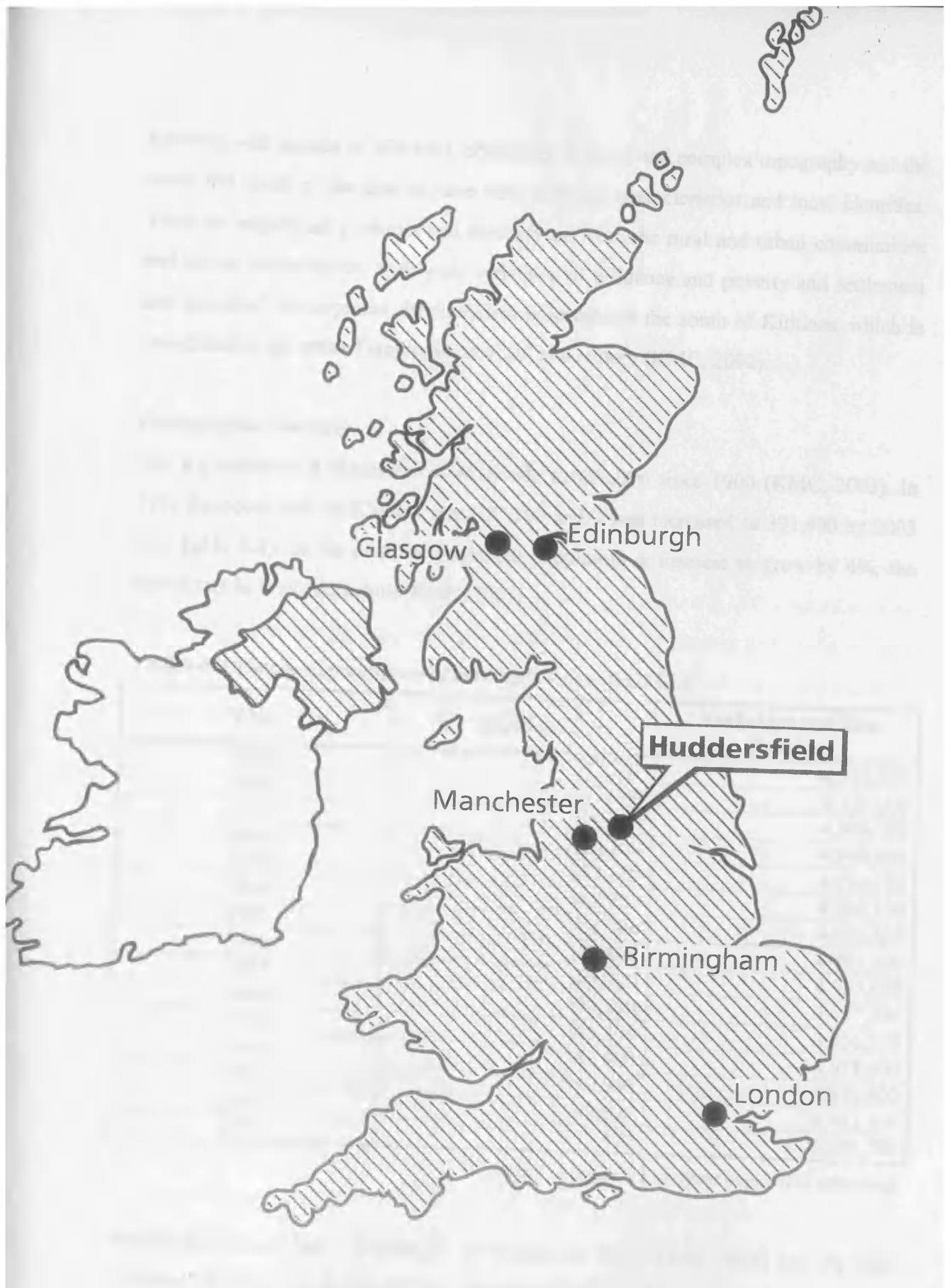


Figure 6-4: Location of Huddersfield in the UK

Kirklees, with an area of 408 km<sup>2</sup>, constitutes a varied and complex topography and the north and south of the district have very different characteristics and local identities. There are significant contrasts and diversity between the rural and urban communities and within communities, with wide variations of affluence and poverty and settlement and industrial development. Huddersfield is located in the south of Kirklees, which is recognized as the area of employment, retail and culture (KMC, 2002).

### ***Demographic overview***

The population in Kirklees has risen slowly to 400,000 since 1900 (KMC, 2003). In 1993 the population of Kirklees was 382,100 and it had increased to 391,400 by 2003 (see Table 6-4). In the next ten years, the population is forecast to grow by 4%, the fastest rate in West Yorkshire (KMC, 2003).

Table6-4: Changes of population in Kirklees (Source: NOMIS)

<b>Year</b>	<b>Kirklees</b>	<b>Yorkshire and The Humber</b>
1989	377,300	4,912,400
1990	377,700	4,921,000
1991	379,000	4,936,100
1992	380,100	4,949,000
1993	382,100	4,954,100
1994	382,700	4,960,100
1995	383,200	4,960,600
1996	383,800	4,961,300
1997	383,900	4,957,600
1998	384,700	4,957,700
1999	385,300	4,956,300
2000	386,900	4,958,600
2001	389,000	4,976,600
2002	390,600	4,993,100
2003	391,400	5,009,300

(Note: Figures are midyear population estimates)

Huddersfield itself had a population of 121,620 in 2001 (ONS, 2003) and the total increase has been 51% during the last 100 years (KMC, 2003).

Moreover, Kirklees is culturally diverse with a mix traditions and religions and therefore 10.7% of its population is from ethnic minority groups and this proportion is continuing to rise (KMC, 2002). 91% of the minority ethnic citizens live in 12 of the 24 wards. The largest ethnic minority group is the Pakistani community with 4.7% (17,475) of the total population of Kirklees, followed by the Indian community with 3.2% (11,900), and the Black community with 1.8% (6,586)(1991 census).

### ***Historical overview***

The earliest roots in Huddersfield can be traced to Castle Hill, where there is evidence of an Iron Age fort and a Norman Castle. However, Huddersfield, as it is today, took shape during the 18<sup>th</sup> and 19<sup>th</sup> centuries, leading to the confirmation of county borough status in 1868. Huddersfield grew rapidly in the 19<sup>th</sup> and early 20<sup>th</sup> centuries on an industrial and manufacturing base of woollen textiles, engineering and chemicals (see Landry, 2000). In this sense, Huddersfield has a history as a leading world centre of textiles and engineering (KMC, 2002) and has thus been shaped as an essentially urban industrial town surrounded by moorland countryside. From the early 1970s onwards, as textile production increasingly moved towards the Far East, industry decreased and textiles and engineering declined by more than 75%. Although the decline was initially off-set by growth in chemicals and food and drink production, there was no growth in the high-tech sector (see Pratt, 1998). Huddersfield still has more manufacturing than the national average, a less qualified workforce and lower pay (see Pratt, 1998; KMC, 2002).

Because of their over-dependence on a declining manufacturing sector and failure to adapt to globally changing economic and social environments from the 1970s onwards, the region, and inner Huddersfield in particular, like other industrial cities or towns in the UK (see Chapter 1), have suffered from 'urban problems' such as unemployment, social exclusion, ethnic tension, high crime rates and physical dereliction of vacated areas (KMC, 2002). For example, in 1991 the rate of unemployment in Kirklees was 10%, which included approximately 7,000 unemployed young people (38.5% of the



total number) (see KMC, 2003). Kirklees was also ranked the 19<sup>th</sup> of 354 for unemployment with 13% of the population living in the most deprived 10 % of wards in England in the 1998 index of Local Deprivation developed by the Centre for Urban Policy Studies at the University of Manchester (see KMC, 2002). The loss of employment meant that the best of its local talent moved to places like London or even further afield and the commutable distance to bigger neighbouring cities, such as Leeds and Manchester, also led to the draining of skills and talent (see CTI, 1996). Moreover, there is a concentration of poverty amongst its mainly Asian ethnic minority (see Landry, 2000).

### ***Local political (and institutional) context***

The boundaries of Kirklees have no historical or geographical significance (Pratt, 1998). In 1974, as the result of local government re-organization, the boundaries of Kirklees administrative district were artificially created from 11 constituent authorities. This legacy has brought problems of trying to develop a public identity within the Kirklees Metropolitan Council (KMC) in an area of diversity and a long tradition of locality and independence (KMC, 2002). Therefore, by the late 1970s, the administration was riven by many internal conflicts and in disarray (see Pratt, 1998).

In 1988, the Kirklees municipality was reviewed by the Institute of Local Government (INLOGOV), a respected specialist public sector consultancy, which concluded that Kirklees was administratively and organizationally one of the most problematic local authorities that it had encountered (see KMC, 2002). According to the analysis made by INLOGOV, the Council was filled with a culture of fear and blame. There was no corporate working in the Council, each department behaving like a self-contained barony (with rigid departmentalism). Officials were controlled in such a way that they had no autonomy and therefore their motivation wasn't well developed. Moreover, there was political infighting and the political leadership hadn't been created. There were no partnerships with the voluntary or private sector, no openness to new ideas and there

was no room for creating knowledge about how to adapt to the changing social conditions (see e.g. Pratt, 1998; Landry, 2000; KMC, 2002).

In responding to this negative analysis, a major upheaval in both office structures and Members' processes occurred in the 1989/90, which required tenacity and a certain ruthlessness (Leadbeater & Goss, 1998). The Council recognized the changing institutional map in Britain, which included competition within local authority services, the transfer of certain functions out of the Council altogether, and the growth of unelected agencies -Quangos- which controlled more resources than the local authority itself (Landry, 2000). The Council established an organization committed to devolved management, the separation of strategic and operational management roles and instituted external partnerships working with an ever-growing range of other agencies. It also had a clear vision for improving the area (KMC, 2002).

### ***The urban regeneration context***

The political and institutional changes made in the early 1990s have not only helped develop officers' and Members' capacity for change, but also been concentrated on urban regeneration activity in Kirklees and Huddersfield in particular. The Council adopted a vision for the regeneration of Kirklees and set itself three key goals as follows:

- A Thriving Economy
- A Flourishing Community
- A Healthy Environment

New forms of partnership with public agencies, the private sector, local people and central government were created to accelerate urban regeneration in Kirklees. Kirklees' first significant partnership was a 1989 joint venture with the Henry Boot building company to redevelop council property for housing, retail and industrial uses (see Leadbeater & Goss, 1998). The partnership's largest project was the redevelopment of

part of Huddersfield town centre. The partnership gave the council a share of profits from the development. More importantly, the long-term relationship with a private company brought Kirklees access to expertise which has allowed it to address urban development issues, which had been more difficult to tackle before (see Leadbeater & Goss, 1998).

The Kirklees - Henry Boot Partnership paved the way for the council to form the partnership to develop the McAlpine Stadium, providing a new home for Huddersfield's football and rugby clubs. The stadium, which has a global reputation, is a modern monument to civic entrepreneurship (see Leadbeater & Goss, 1998). The private sector could not have built it on its own. The local football and rugby clubs did not have the resources, nor did the public sector. Instead Kirklees brokered a public-private partnership, which has built a stadium that is neither purely public nor purely private and it has become a community asset.

KMC also utilized the partnership approach to urban regeneration to obtain government budgets. Following the then Conservative government guidelines and directives, KMC used bids for government money in order to effectively carry out urban regeneration projects to improve its environment, tackle disadvantage and inequality and enhance its built heritage, as well as creating the conditions for enterprise of all sorts to flourish. For example, in 1990, the Council set up Huddersfield Pride Ltd, a regeneration company, in order to deliver the SRB programmes as a partnership company. This approach was called the 'Kirklees bidding machine' and has been copied elsewhere and is being mainstreamed in the UK (Landry, 2000). In other words, KMC pragmatically turned government constraints into advantages and learnt that by collaboration it could win access to public funds. As a result, over a seven-year period between 1990 and 1996 Kirklees achieved a 100 % success rate in winning support from the UK government, such as from City Challenge and Single Regeneration Budget, which competitively won approximately £ 90 million of public resources for the town (see Table 6-5, also see CTI, 1996).

Table6-5: Urban regeneration projects in Kirklees (1990-1996)(Source, CTI, 1996)

<b>Name of projects</b>	<b>Name of funds</b>	<b>Budget</b>	<b>Period</b>
Batley Action	City Challenge	£ 45.75 million	1993-1998
Huddersfield Pride	Single Regeneration Budget	£ 15.25 million	1995-2002
Routeways to Success	Single Regeneration Budget	£ 9.15 million	1995-2002
Dewsbury: Fabric for the Future	Single Regeneration Budget	£ 18.3 million	1996-2003

In addressing urban regeneration, KMC also used other funds such as the application of EC Structural Funds, notably the ERDF, based on a variety of partnership delivery mechanisms (KMC, 2002). The Council has also been a partner in two successful bids under Regeneration Challenge for the TeCH Programme and for the 1998 Year of Photography and the Electronic Image. Moreover, it is also a partner in two other Article 10 bids. One is a transactional information society bid entitled Trans-Europe Liaison Network (Tel-Net), which is being led by the South West Regional Authority of the Republic of Ireland. The other is a bid entitled the Virtual European Market Plaza (EuroWeb Plaza), which is being led by the city of Leeuwarden in the Netherlands (CTI, 1996). More recently, KMC has also accessed Neighbourhood Renewal Funds and 13 wards qualify for Objective 2 for the period 2000-2006. Much though remains to be done to tackle urban problems such as poverty and inequality (KMC, 2002).

The UK National Lottery has also been used effectively to further the Council's regeneration aims (CTI, 1996). Kirklees has the highest success rate of any local authority in bidding to two of the five distributing bodies: the Sports Council and the National Heritage Memorial Fund. It has also submitted a bid to the Millennium Commission entitled The Knowledge Mill, a bid for £ 19.2 million for a project to widen access to computing and information technology for the general public.

### ***Cultural context***

There is a historically strong link between culture and the development of Huddersfield. At the height of the industrial revolution, mills supported the establishment of brass bands and choirs to fill the leisure time of their employees. Much of the town's architectural and cultural infrastructure was also established at this time, such as the fine Town Hall, Concert Hall and the magnificent railway station facade. Although many of the mills are now gone, Huddersfield remains a strongly musical town. The Huddersfield and District Brass Band Association is today the strongest organization of its kind in the UK, whilst the Huddersfield Choral Society is world-renowned (see CTI, 1996). There are high levels of participation in such musical activities at school, amateur and professional levels. Ensuring that this tradition remains alive, a forward looking Music Festival is organized called the Huddersfield Contemporary Music Festival. This is the UK's premier event for modern music, which since 1978 has provided a dynamic annual interaction between the world's greatest living composers and the local public. In this sense, the musical tradition lives on in Huddersfield.

Recent years have seen a broadening and deepening of the town's cultural life and the last 5 to 10 years could be described as Huddersfield's Cultural Renaissance. Confirmation of this was provided recently when the town was awarded first prize in the Arts Council/British Gas Properties' 'Working For Cities' Awards, recognizing it as the town in the UK which had done the most to integrate culture within an overall programme of urban regeneration. Huddersfield was also chosen as British poetry's capital. Low rents and the low costs of living have attracted a number of poets and through their own contacts and support from KMC a snowball effect has been created so that poetry events of national significance are held regularly. Related national organizations have moved there and, for those specialising in these activities, Huddersfield's image has changed (see Landry, 1995).

KMC has established a strong strategic framework for the development of culture and the Cultural Services Department in KMC has played a significant role in linking

culture and urban regeneration. From early on, this department adopted a broad definition of culture, embracing issues well beyond the development of art forms. For example, arts were utilized for community development and as a potential economic driver. In 1989, the Cultural Services Department, as mentioned later, helped to set up Cultural Industries in Kirklees (CIK), a highly motivated grass roots agency which published a major document called '*A Chance to Participate: the potential of cultural industries and community arts in the economic and social regeneration of Kirklees*' (CIK, 1989). This was followed in 1994 with the adoption by the Council of a cultural policy '*Made in Kirklees*' (KMC, 1994). This has the following corporate themes;

- Celebrating Diversity
- Maintaining Distinctiveness
- Harnessing Creativity

The principles of the Policy are summarised as follows:

- Local cultural identity and pride are an essential pre-condition of achieving economic, community and environmental regeneration
- Imagination and creativity are essential elements in achieving both local identity and personal development
- Diversity of lifestyle, livelihood, culture and habitat is an asset and through the understanding and celebrating of this a tolerant society can be developed.
- Local distinctiveness takes centuries to develop, but can be lost overnight and so must be defended and nurtured.
- Local culture is dynamic, not static, and therefore change and development are an essential partners to protection and conservation
- Through investment, empowerment and education the creative abilities which exist in all citizens can be released for the good of the individual, the community and the economy.

The policy has, as will be argued later, a strong link with the Creative Town Initiative (CTI) in Huddersfield in relating culture and creativity to urban regeneration. In these broad contexts, in 1995 CTI was organised and made a proposal to the European Commission under the auspices of the Urban Pilot Projects (UPP) scheme.

Before examining the application / relevance of Nonaka's theoretical frameworks to urban regeneration through the process of making the CTI proposal (in 1991-96) (which will be regarded as *the first knowledge spiral of CTI*)(see section 6.3.4 and section 6.3.5), the following two sub-sections will look at the background to CTI. The activity which led to CTI in the 'early 1980s' is regarded as *the first knowledge spiral of cultural industries* (section 6.3.2) and activity in the 'late 1980s' is regarded as *the second knowledge spiral of cultural industries* (section 6.3.3). Section 6.3.6 also looks at the post-CTI event, regarding it as *the second knowledge spiral of CTI* (see Table 6-4).

Table6-6: Names of knowledge spirals associated with CTI (Author)

Name of the knowledge spirals	Period
The first knowledge spiral of cultural industries	Early 1980s
The second knowledge spiral of cultural industries	Late 1980s
<b>The first knowledge spiral of CTI</b> <b>(The CTI proposal making)</b>	<b>From 1991 to 1997</b>
The second knowledge spiral of CTI	From 1997 to 2000

### 6.3.2 The first knowledge spiral of cultural industries: Illustrating Nonaka's theoretical framework in activities around the cultural sector in the early 1980s

#### *Fluctuation and chaos in Huddersfield as a knowledge enabling condition*

Nonaka assumes that *fluctuation* and (*creative*) *chaos* generated when a firm faces a real *crisis* facilitates organizational knowledge creation (see Table 6-2). Similarly, Hall (2000), speaking at the Creative City Conference in Huddersfield, stated that 'historically, drastic problems such as cholera, need for fresh water and need for travel

systems etc. led to urban creativity'. Phil Wood (2000), the then manager of CTI, also stated at the same conference that 'historically, the triggers to creativity have been crises, leading to municipal, civil and technological creativity'. The crisis in Huddersfield in the early 1980s took the form of the loss of employment, in manufacturing in particular (see Table 6-7).

Table 6-7: Changes in employment in Huddersfield (Source: ONS)

		Primary Production	Manufacture	Construction	Service Industries	Unclassified by Industry	Total
1975		1,295	45,423	2,999	37,516	2	87,235
1976		1,315	42,909	3,550	39,028	3	86,805
1977		1,268	43,427	3,668	39,144	3	87,510
1978		1,255	42,065	3,264	39,143	5	85,732
1981		1,389	30,057	2,884	37,463	369	72,162
Change (1975- 1981)	Nom.	94	-15,366	-115	-53	367	-15,073
	%	7.3	-33.8	-3.8	-0.1	18350.0	-17.3

Table 6-7 clearly shows the considerable decline in employment in manufacturing in Huddersfield. In an interview with the author, Phil Wood recalled:

*Around 1982, unemployment was regarded as a very serious 'crisis' in Huddersfield and the whole UK. The feeling of almost panic [existed] in the local authority [Kirklees Metropolitan Council] because they could not understand what was happening. Thousands and thousands of people would be made unemployed in the town. People were worried about its consequences, [particularly] social consequences of this happening.<sup>12</sup>*

In addition to this, at the time there was a racial *crisis* in Huddersfield. In his meeting with the author, Sean Leonard, the then Economic Development Officer in KMC, commented:

*In 1981, a "multicultural mob" of black and white youths occurred, storming through the centre of Huddersfield town centre and the urban riot drew attention back to social conditions.<sup>13</sup>*

<sup>12</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 1(1)

<sup>13</sup> Interviewed on October 31<sup>st</sup> 2003



This kind of racial issue extended into the schools. Wood explained this as follows:

*There were problems in schools in Kirklees because white people [parents] did not want their children to be educated with Asian children and the Council handled this very badly. It became a national scandal.<sup>14</sup>*

The above serious crises (problems), mainly concerned with unemployment around the manufacturing sector and racial issues, naturally created *fluctuating* and *chaotic* environments in the Kirklees Metropolitan Council (KMC) (one of Nonaka's enabling conditions for knowledge creation). In 1982, KMC created a new post of 'Community Worker for the Unemployed' in the Libraries and Arts Department (then Cultural Services Department), with a remit to try to understand these *fluctuating* and *chaotic* environments.<sup>15</sup> In other words, the environment provided KMC with an opportunity to reconsider its basis and mindsets for addressing urban problems in Huddersfield and facilitated 'subjective commitment' (Nonaka & Takeuchi, 1995) to local communities through the creation of the new post. The creation of the new post can be considered as a starting point of knowledge-creating processes leading to CTI in Huddersfield. This thesis considers it to be the start of the first 'knowledge spiral', referred to here as *the first knowledge spiral of cultural industries*.

### ***Phase 1: Accumulating and sharing tacit knowledge: The socialization mode***

#### ***Wood's method of accumulating tacit knowledge***

In 1982 Phil Wood, who had become the central figure in making the CTI proposal, was employed in the new post of 'Community Worker for the Unemployed'. In an interview with the author, he recalled that:

*I was employed by the Council to meet with unemployed people, to try to understand how they were coping with unemployment. ...I was not given a plan. I [instead] made a job*

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<sup>14</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 1(1)

<sup>15</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 1(2)

*from nothing. Simply going and finding people and talking to them, asking what they wanted to do with all their spare time that they have.*<sup>16</sup>

This account illustrates Phase 1 of *sharing tacit knowledge* of Nonaka's five-phase model of organizational knowledge creation (or the *socialization* mode of knowledge conversion in his SECI model) in the first knowledge spiral of cultural industries (see Figure 6-5). It is because Wood, who was given (*individual*) *autonomy* at that time, *directly* interacted with local (unemployed) people and tried to understand and share their feelings and perspectives (and in so doing acquire tacit knowledge), which was context-specific and different from previous situations. In other words, the traditional scientific methods (which Systems Theories and Rational Theories of Planning usually use), such as following particular work procedures, analysing (or manipulating) information (explicit knowledge) and producing policies based on explicit information, were not considered the way to understand and solve the situations of the unemployed.

#### *Individual accumulation rather than collective sharing of tacit knowledge*

Strictly speaking, Wood himself *individually accumulated*,<sup>17</sup> rather than *collectively (institutionally) shared* (which Nonaka emphasizes in his theory), *local tacit knowledge* of the local situations on the unemployed. Such local tacit knowledge was only acquired at Wood's discretion, while the unemployed were the only source of (tacit) knowledge of the real situations they faced (and the feelings they held). Moreover, it can be argued that although Nonaka tends to assume that the *technical* dimension of tacit knowledge lies ontologically at the *individual* level, while the *cognitive* dimension is at the collective level (see 2.5.1 & Figure 2-4), this classification cannot be applied to the case because Wood again 'individually' accumulated the tacit feelings of the unemployed people he met, which obviously corresponds to the 'cognitive' rather than technical dimension of tacit knowledge.

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<sup>16</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 1(2)

<sup>17</sup> The term 'accumulation' is one of the linguistic meaning functions in the TEAM linguistic framework, which is the same quadrant with the socialization mode of knowledge conversion in Nonaka's SECI model (see Figure 2-4 in Chapter 2).

*Strong belief as Phase 1 of accumulating (sharing) tacit knowledge*

Through his individual 'learning by walking around', Wood identified another group of people. Explaining this during an interview with the author, he commented:

*I realized that a quite few people were doing very interesting things. They were starting recording music, making films, writing plays, making theatre and making music. ...[I thought] Maybe they are going to create their own jobs by doing this. At the time it was possible for ordinary people to have access to computer technology, cheap video cameras and sound recording equipment.<sup>18</sup>*

One of people who interested Wood was Brian Cross, the director of Artimedia, a media-focused private company. He explained his own work at that time as follows:

*At that time, I worked, for example, with the Caribbean community coming to this area in the 1950s. I organised carnivals and made music with them. We also completed major projects using computers. We believed cultures were economic resources. We also provided training, consultancy and information for them.*

At that time there were people in Huddersfield who were artists, video makers, fledgling businesses and training providers and the Libraries and Arts Department in KMC, and Phil Wood in particular, paid attention to these people. Following the above description, this thesis defines 'cultural people' as people who use culture (including music, films, plays, drama and new technologies) as tools of local economic and social development. Wood also added:

*That [job-creation using cultures and technologies] was regarded as crazy 20 years ago because Huddersfield is an industrial town. People make things in factories [here]. ... I was attracted by this group of people. I thought that I'd like to particularly work with them and that this would become a new form of economic activity.<sup>19</sup>*

Wood's account was also supported by Toby Hyam, the director of the Media Centre. In an interview with the author, he commented:

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<sup>18</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>19</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 1(2)

industries was not *externalised* from Phil's 'brain', but was 'founded' through 'learning by walking around' London.

The finding of the concept of 'cultural industries' affected the direction of 'cultural people' in Huddersfield. Brain Cross described it as follows:

*This time was the emergence of the 'cultural industries' as a concept and if you describe it, it was 'a window of change'. I often think of the analogy that we could hoist our own sail and then sail the boat. The concept of the cultural industries was our sail and we could move together with this change. It was significant because we thought we, a small group, were able to come together, even though we were economically at a very low level of activity. I thought we could become something bigger, could be larger, in some part. And I thought this idea came together at that moment.*<sup>22</sup>

#### ***Phase 5: Cross-levelling of knowledge: The internalization mode***

In the early 1980s, the first knowledge spiral of cultural industries generated around the Libraries and Arts Department in KMC ended the creation (finding) of the *conceptual knowledge* of 'cultural industries'. In other words, using Nonaka's term, the concept could not reach the phase of its *justification* (Phase 3) and a policy to which the concept was applied was not formulated (which is related to Phase 4 of building an archetype). But this concept was *internalised* into Phil Wood and *cross-levelled* to *Cultural Industries in Kirklees* (CIK), a voluntary-based cross-agency team (which corresponds to Phase 5 of cross-levelling of knowledge) (see Figure 6-5); the development will be further explained and illustrated in the next section.

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<sup>22</sup> Interviewed on October 29<sup>th</sup> 2003

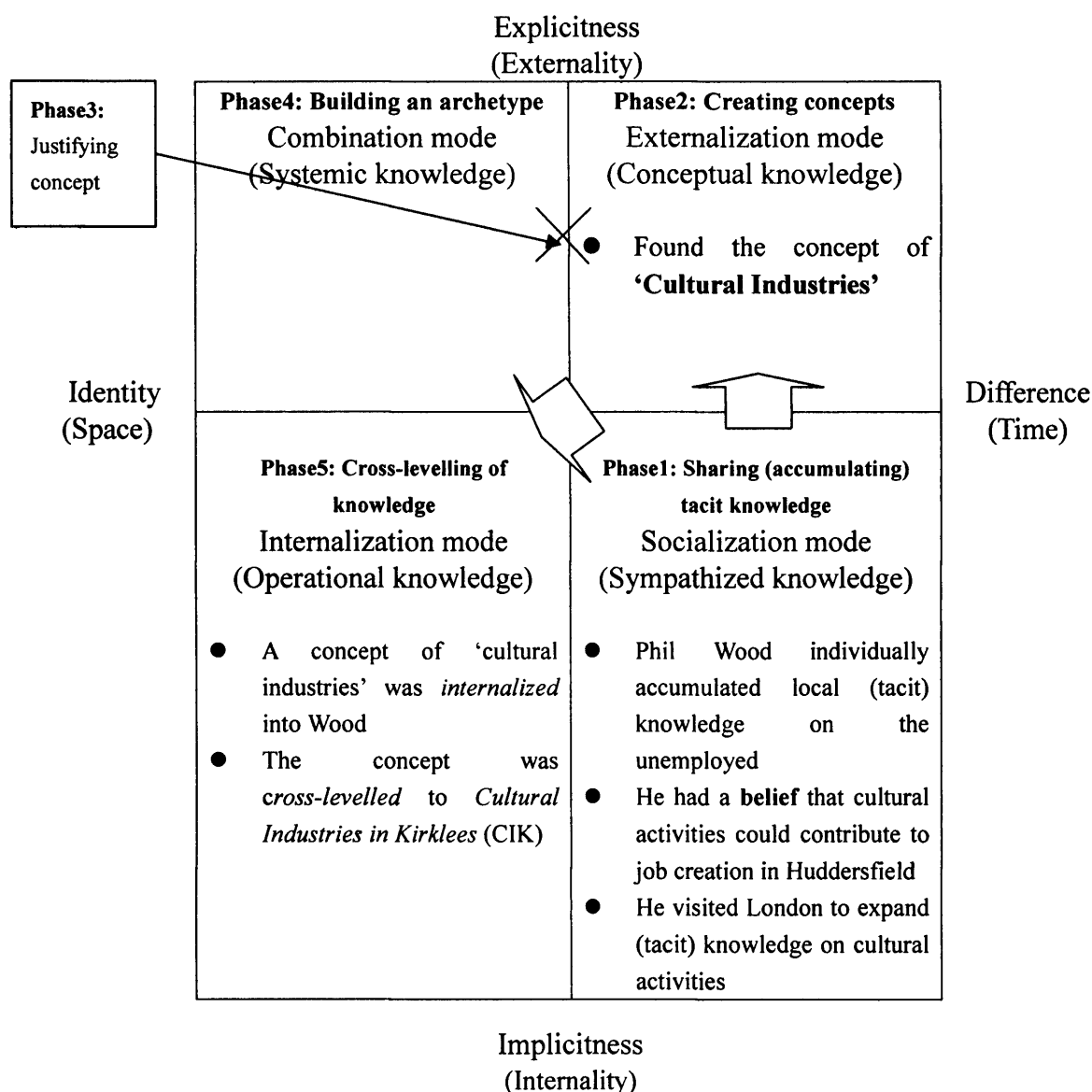


Figure6-5: The first knowledge spiral of cultural industries within Nonaka’s five-phase model framework (Source: Author)

### 6.3.3 The second knowledge spiral of cultural industries: Illustrating Nonaka’s theoretical frameworks in activity in and around the cultural sector in the late 1980s

#### *Five conditions for knowledge creation in the second knowledge spiral of cultural industries*

The Kirklees Metropolitan Council, as mentioned earlier, underwent a radical restructuring in the late 1980s. In 1988, the Institute of Local Government (INLOGOV) at Birmingham University made a review of the performance of local governments in

Britain. This assessed KMC as one of the most problematic local authorities. In an interview with the author, Sean Leonard, the then officer of Economic Development in KMC, recalled that:

*At the time, a damning report on the local authority was published. If I remember correctly, that was by INGOV, which ranked the Kirklees Metropolitan Council in very low place. It created a very negative image of the Kirklees Local Authority.<sup>23</sup>*

In fact, INLOGOV assessed KMC as a ‘basket case’ (Landry, 2000), which was characterized by rigid departmentalism and no corporate spirit, convoluted decision-making, a total lack of strategic direction, a lack of accountability, divisive senior management (no autonomy and motivation), very poor relations with members and no partnership with voluntary or private sectors (see KMC, 2002; Landry, 2000). This thesis views this event as the starting point of *the second knowledge spiral of cultural industries* around the Cultural Services Department (previously the Libraries and Arts Department)(see Figure 6-6).

After an internal political struggle within the Labour Party in 1986, a compromise leadership choice was made in the person of John Harman, who the old guard thought could be controlled (Landry, 2000). In his meeting with the author, Phil Wood also commented:

*Up to 1988, the Kirklees Council was a very poorly managed organization. In fact, it was described by INLOGOV as the most badly managed local authority in Britain. Prior to that, many crises had taken place that led to the change of leadership in the Council with a new leader created. This was a very young man, named John Harman.<sup>24</sup>*

John Harman could not have succeeded without an alliance with Roberts Hughes. At that time Hughes, also a dynamic, iconoclastic, outspoken and inspirational leader, was appointed as the new chief executive and was frustrated with the traditional departmental bureaucracy at the authority and this spurred many of the subsequent

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<sup>23</sup> Interviewed on October 31<sup>st</sup> 2003

<sup>24</sup> Interviews on October 28<sup>th</sup> 2003, also see Apendix2, 2(1).

changes (see Leadbeater & Goss, 1998). In relation to Wood's account, in his meeting with the author, Brain Cross commented:

*John Harman had creativity as the leader of the Council. And there was also an enterprising chief executive. That was Roberts Hughes. ...The strength of the Council led by John Harman and Robert Hughes was the charismatic personality and enterprising attitudes.*<sup>25</sup>

It was this alliance between a reforming political leadership and a modernising management team that created the space for entrepreneurship to flourish. In other words, they recognized the changing institutional environment in the UK, which included the shift of certain roles from the Council to other organizations in Kirklees, such as Quangos (including National Health Services Trusts and TECs) and competition within local authority services.

According to Leadbeater & Goss (1998), the restructuring in Kirklees conducted by John Harman and Roberts Hughes created at least three 'spaces' in which innovation and entrepreneurship could emerge. Firstly, by focusing the senior manager and political leaders on strategic issues facing the authority, such as community safety and the environment, the Council was able to renew its sense of purpose by concentrating on the outcomes, rather than the outputs, it should deliver. Secondly, by devolving personal responsibility to line managers it created more space for innovation and experimentation in terms of service delivery. Thirdly, by stressing the importance of partnerships with outsiders, such as churches, community groups and private companies, the authority encouraged its officers to explore new more creative relationships as the way to develop services. In particular, the third point is important in this thesis. In her meeting with the author, Tess Butler, the director of Huddersfield Pride Ltd, an urban regeneration organization, commented:

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<sup>25</sup> Interviewed on October 29<sup>th</sup> 2003

*John Harman was instrumental in getting into the partnership work. He was a good partnership worker. He started his partnership and his partnership led the Council. Robert Hughes was also very much a partnership man.*<sup>26</sup>

Her account is echoed by Phil Wood, who explained:

*John Harman had a very new idea about how local government should work. Rather than being a hierarchy, he believed in a network organization [a horizontally formulated partnership system]. He argued that a Council must have a vision, but that it could not alone deliver such a vision and that the Council therefore must work with other partners, including the private and voluntary sectors and local communities. John Harman thought that in order to achieve his vision of economic and social regeneration, he would work with anybody who wanted to work in partnership with him. It did not matter whether you were a grand businessman or whether you were nobody, a humble artist. If you wanted to work in partnerships, let's talk.*<sup>27</sup>

In 1990, the Council adopted a Vision for the Regeneration of Kirklees and set itself three key goals of *A Thriving Economy*, *A Flourishing Community* and *A Healthy Environment* (see KMC, 1996).

All these above accounts clearly illustrate Nonaka's *five conditions* which facilitated the second knowledge spiral of cultural industries (see Table 6-2). Firstly, the negative analysis itself made by INLOGOV introduced a sense of *crisis* of governance and the resulting *fluctuating* or *chaotic* environments into KMC and Huddersfield. Secondly, the recognition of the crisis led KMC (with the help of the leadership of Sir John Harman (the then Council leader) as well as Robert Hughes (the then chief executive) to restructure governance in Kirklees and as part of this to create a *strategic vision* (illustrating the local government's *intention*). Thirdly, the transfer of operational responsibility for line managers in KMC made by John Harman also created more *autonomy* for line managers like Phil Wood.<sup>28</sup> Fourthly, the introduction and promotion of *partnerships* with 'outsiders' from the Council (such as community groups, voluntary organizations and private companies) into Kirklees and Huddersfield as a device of

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<sup>26</sup> Interviews on October 29<sup>th</sup> 2003

<sup>27</sup> Interviews on October 28<sup>th</sup> 2003

<sup>28</sup> Interviewed on October 28<sup>th</sup> 2003 (see Appendix 2, 2(1)) and also see Leadbeater and Goss (1998)



delivering the Council vision led to *requisite variety* and *information redundancy* because partnerships brought together a variety of knowledge (information) of Huddersfield from the various sectors in the town. Wood explained the novelty of Harman's approach in the UK as follows:

*Many of the things that John Harman introduced in Kirklees have now become national policy. For example, although nowadays the concept of the partnership is an ordinary thing, at that time, it was a radical idea.*<sup>29</sup>

### ***Phase 1: Sharing tacit knowledge: The socialization mode***

According to Phil Wood, there was an interesting response from the 'cultural people' to the reconstruction of the governance of KMC. In an interview with the author, Wood explained:

*This [reconstruction of the governance of KMC] was seen as a great opportunity for artists and small entrepreneurs [related to culture] because up to that point, they had been ignored by the Council. ...We realized that with John Harman's arrival came an opportunity. We thought how we could take advantage of this opportunity. We started a series of (secret) meetings. ...What we did was to reform an [new] organization, which was named 'Cultural industries in Kirklees (CIK)'.<sup>30</sup>*

Wood's account was echoed by Brian Cross, one of the members of CIK, who also commented that:

*Although we had to learn to speak to the Council to convey our intentions without losing the meaning, John Harman and Robert Hughes understood what language we were speaking. That is important. We could retain the meaning of what we were doing.*<sup>31</sup>

In other words, a revitalised and receptive local authority was met with a highly motivated grass roots cultural sector (Pratt, 1988) to convey the Council's vision. This suggests that the knowledge enabling conditions (created mainly by the restructuring of KMC) facilitated the people related to the Cultural Services Department to take action,

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<sup>29</sup> Interviewed on October 28<sup>th</sup> 2003, also see Apendix2, 2(1)

<sup>30</sup> Interviewed on October 28<sup>th</sup> 2003 also see Apendix2, 2(2)

<sup>31</sup> Interviewed on October 29<sup>th</sup> 2003

which this thesis considers generated the second knowledge spiral of cultural industries. As mentioned earlier, the name of the organization of ‘*Cultural industries*’ in Kirklees (CIK) came from the first knowledge spiral of cultural industries in the early 1980s (see Figure 6-5).

#### *CIK as Phase 1 of sharing tacit knowledge*

The members of CIK, a newly created organization, discussed and researched cultural activities in Huddersfield. In an interview with the author, Brian Cross recalled:

*The people who were involved in the [CIK] activity were Jim Lister, Proper Job and the main editor and writer was Tessa Gordziko. She was contracted to bring the ideas and full research together to write the report. She was very good at that. Gill Bond, she belonged to a company called Satellite. ....All this work was initially done on a voluntary basis. We met and discussed and came up with ideas and a great level of commitment was shown. We could actually say our strength [of CIK] is co-work, bottom-upwards and grass roots. When you looked at the range of people we worked with, [There were] culturally diverse groups. We worked with disabled groups, we worked in a culturally sensitive way with a certain community. We worked with women's groups.<sup>32</sup>*

The importance of the activities taken by CIK was more clearly explained by Toby Hyam who commented:

*There was an organization called CIK which acted as a network for creative business and artists in Huddersfield. ...It is clear that without this network, it is unlikely that the development of CTI would have occurred.<sup>33</sup>*

The face-to-face closed meetings held by the grass roots team (working with a wide range of groups and making networks) employing interview-based research on existing cultural activities, illustrate Phase 1 of (Nonaka's concept of) *sharing (and accumulating) tacit knowledge* among the members of CIK on cultural voluntary activities in Huddersfield (see Figure 6-6). In other words, the direct contact with ‘cultural people’ in Huddersfield, generated *embodied knowledge* (the individual dimension of tacit knowledge) on cultural activities in Huddersfield. Moreover, the

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<sup>32</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>33</sup> Interviewed on October 31<sup>st</sup> 2003

organization type of CIK (which is a voluntary cross-agent team) including the involvement of the directors of voluntary organizations and a private company associated with arts or cultures illustrates the *cross-functional, self-organizing team* with *autonomy* at both individual and collective levels, in which Nonaka assumes it is easy to create new knowledge.

### ***Phase 2: Creating concepts: The externalisation mode***

The approach of CIK to urban regeneration was also influenced and supported by the accounts of academics or consultants (see CIK, 1989). For example, while Myerscough had just published a seminal report on the economic value of cultural activity in 1988, Bianchini et al. (1988) and Landry (1989) published reports on the relationship between cultures and economics in the urban regeneration context. Through discussions with a variety of ‘cultural people’ and influenced and supported by the accounts of academics or consultants, the members of CIK came up with the new concept of ‘*the potential of cultural industries and community arts in the social and economic regeneration of Kirklees*’ (CIK, 1989). This concept clearly represented the linkage between community arts and economic regeneration and moved the argument about the arts away from an ‘art for art’s sake’ agenda to one where culture was seen as a tool for achieving wider Council objectives of urban regeneration in Huddersfield. This concept-creation illustrates Phase 2 of Nonaka’s five-phase model (see Figure 6-6).

According to Nonaka (Nonaka & Takeuchi, 1995), a frequently used method of creating a concept is to combine *deduction* and *induction*. CIK combined these two reasoning methods when developing their new concept. While this was *deduced* from the Council’s (Harman’s) ‘vision for Kirklees’, which highlighted the importance of economic regeneration, at the same time, it was also *induced* from empirical interview-based research on community arts in Kirklees conducted by CIK. In this sense, as mentioned earlier, *organizational (Council’s) intention* clearly facilitated its concept-creation in CIK in particular.

#### ***Phase 4: Building an archetype: The combination mode***

In 1989, a report called '*A Chance to Participate*' was produced by CIK. Commenting on this paper, Wood explained:

*They [the members of CIK] produced 'A Chance to Participate'. ...They provided the evidence base [of cultural activities in Huddersfield] because they proved there were already a lot of activities and already quite a few people employed [in the cultural sector]. Things before having been invisible suddenly became visible through 'A Chance to Participate'.*<sup>34</sup>

Wood's account was echoed by Brian Cross who also commented:

*We drew on the experience of many people in the community arts and it became a very significant time. We made a presentation, showing photographic skills, script writing skills, public speaking and communication skills. We could script very powerful presentations. We could actually place an argument within the right context.*<sup>35</sup>

These accounts are also supported by Toby Hyam who, in a meeting with the author, commented:

*It [A Chance to Participate] demonstrated that there was a group/network/cluster of enterprises who were growing in the town and who illustrated a cultural focus for such a proposal. ...Thus it provided a rationale for the project, evidence of early success and a vision for potential growth.*<sup>36</sup>

All these accounts suggests that the report not only sought to bridge economic regeneration and cultural activities (including community arts), but also provided *explicit* evidence of the existing cultural activities in Kirklees which might have economic importance. In other words, the report made tacit knowledge of 'cultural activities' (which had not been visible before) in Huddersfield suddenly *explicitly* visible and *combined* (incorporated) a variety of cultural activities in Huddersfield into the framework based on the concept created. In other words, from the perspective of the linguistic framework, it can be said that the report made cultural activities in Kirklees

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<sup>34</sup> Interviewed on October 28<sup>th</sup> 2003 also see Apendix2, 2(2).

<sup>35</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>36</sup> Interviewed on October 31<sup>st</sup> 2003

and Huddersfield *transmissive*, which is one of the linguistic meaning functions and falls into the same quadrant as the combination mode. This illustrates Phase 4 of *building an archetype* (or *the combination* mode of knowledge conversion) in Nonaka's five-phase model (see Figure 6-6).

### ***Phases 3 and 5: Justifying concepts and cross-levelling knowledge***

The report made by CIK was *justified* against the Council's (John Harman's) vision (which corresponds to Phase 3). According to Wood, John Harman was very pleased with the report and said that 'this is good, this is what I wanted to see and I am going to support these cultural industries'.<sup>37</sup> Some of the members in CIK then became the main actors in the new organizations, called the *Forum of Cultural Industries* and then the *Creative Town Initiative* (CTI). This fact illustrates Phase 5 of *cross-levelling of Knowledge* (see Figure 6-6). The Media Centre, which then became the symbolic and physical core of the *Creative Cluster* in Huddersfield, was also realized based on the idea created through CIK.

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<sup>37</sup> Interviewed on October 28<sup>th</sup> 2003 also see Appendix2, 2(2)

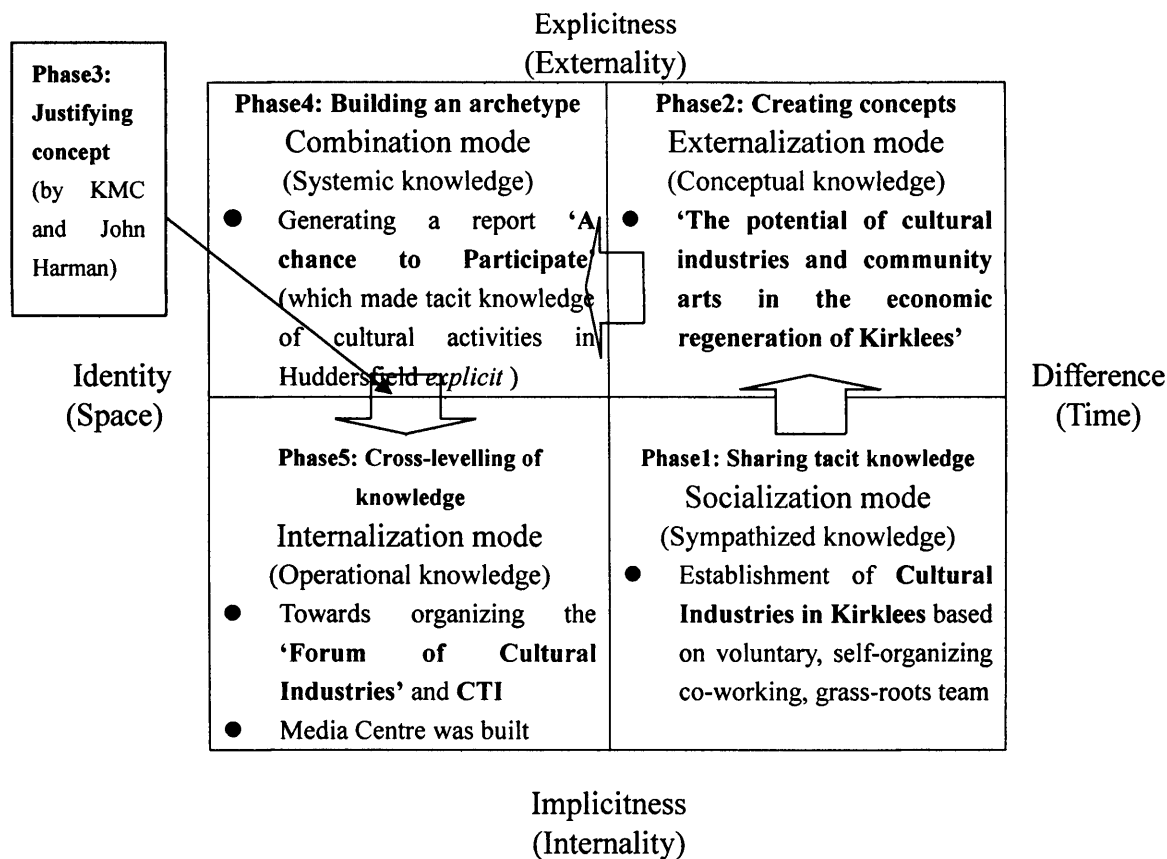


Figure6-6: The second knowledge spiral of cultural industries within Nonaka's five-phase model framework (Source: Author)

#### 6.3.4 The first knowledge spiral of CTI: Illustrating Nonaka's theoretical frameworks in the process of creating the CTI proposal

The two knowledge spirals of cultural industries occurring around the Libraries and Arts Services Department (then the Cultural Services Department) in KMC in the 1980s provided the context for the sequential knowledge spiral of CTI. This sub-section aims to illustrate the application of the theoretical frameworks of Nonaka's theory by using process of creating the CTI proposal, referred to as *the first knowledge spiral of CTI*.

##### ***Phase 1: Sharing tacit knowledge: The socialization mode***

##### ***The forum for Cultural Industries as Phase 1 of sharing tacit knowledge***

Although CTI was organized in 1995 to make a CTI proposal, this thesis considers that the first knowledge spiral of CTI started in 1991 when the *Forum for Cultural Industries*, a cross-agency forum based on public-private partnerships, was established

around the Cultural Services Department by John Harman. This is because it provided the organizational foundation of CTI. The forum created opportunities for wider and different kinds of people from different backgrounds to meet together and to discuss issues on an equal basis. Elaborating on this, Phil Wood explained:

*He [John Harman] created a series of forums. The purpose of these forums was to bring different kinds of people together. Up to that point, Kirklees Council and all local councils were rigidly divided. You had Councils, politicians and Council officers over here, business people and the community over there. There was no forum through which you could speak to each other. Everything was formalized and run on rigid procedural lines. It was very difficult for anybody to encourage a new idea. We had got to have a free system up and we had got to allow people from different positions in society from politics, business and arts, to speak to each other from equal bases. ...Everybody sat around the table and you discussed and you had arguments and disagreements. People were allowed to argue and allowed to disagree because this is the creative process. One of these forums was the 'Forum for Cultural Industries'. It included myself, supported by the chief executive of the local Council called Robert Hughes, again a very, very talented and creative man. ...There was a senior policy officer a lady called Vivian Lonely. ...You had people like myself, Jim Lister, Brain Cross, Sean Leonard and other people. That was the early 1990s.<sup>38</sup>*

Explaining the role of the partnership approach, Wood added:

*What Huddersfield had in the mid 1990s was a lot of trust and respect. ...Trust is the foundation on which we built so much in this town. ...The atmosphere in Kirklees was one of partnership. Everybody understood what their roles were.<sup>39</sup>*

Wood's account on the partnership in Kirklees and Huddersfield in particular is supported by Tess Butler who commented:

*Kirklees worked in partnerships many years before the government encouraged every local area to build partnerships. ...Partnerships[in Kirklees] depend on the project. Some partnerships are on my board, while others may be on another board. You see the same people around the different tables because they come together for the good of the town.<sup>40</sup>*

It is obvious from Wood's above accounts that the Forum of Cultural Industries based

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<sup>38</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 3(1)

<sup>39</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 3(1)

<sup>40</sup> Interviewed on October 29<sup>th</sup> 2003

on public-private partnerships in particular illustrates Phase 1 of *sharing tacit knowledge* (among the public, business, voluntary and community sectors) of Nonaka's five-phase model (see Figure 6-8) in the first knowledge spiral of CTI. Bringing different people together is akin to the cross-functional team in Nonaka's theory. The forums which allowed people to discuss / debate different issues correspond to Nonaka's brain-storming. Through the forums a vision or perspective (tacit knowledge) of 'cultural industries' (that is, how *cultures* contribute to social and economic regeneration as an industry in Huddersfield), which had emerged in the 1980s (see section 6.3.2 & 6.3.3), was widely shared among the members. In addition to the forum, in 1994 the cultural services department in KMC brought people from various backgrounds from business, university, and community arts together to participate in competitive events for *the year of literature* held by the Arts Council of England (Landry, 2000). This event also created a feeling of mutual unity and trust, which also provided close relations that helped the CTI proposal. The whole experience reoriented the mental models of all participating individuals and groups associated with the cultural sector in the same direction towards accepting the concept of 'cultural industries', but not in a forceful way. The forum finally facilitated the building of mutual trust (that is *sympathized knowledge* or *encultured knowledge*) among participants, which provided the cognitive foundation (i.e. the building of mutual trust) for making the CTI proposal.

#### *The small group of mavericks as a cross-functional team*

In 1995, CTI was organized to prepare for making the CTI proposal. The vision and strategic framework set out in the original bid document reflected the commitment and vision of a number of key individuals within Huddersfield, who recognized the potential of creativity as a significant contributor to regeneration policy (MTL, 2001). The organization was constituted by an informal group of about 6-7 people. In an interview with the author, Sean Leonard, one of the members of CTI and the then Economic Development Officer in KMC recalled:

*There was, I suppose, a small group of people [who made up CTI], some of whom*



*worked in the Council, some worked in a creative sector, some of whom worked in a kind of voluntary sector. There was a small group of mavericks.<sup>41</sup>*

His account is supported by Tess Butler, who commented:

*There were people who were interested in new sorts of sectors, such as the knowledge economy and the creative sector. There were people who were saying that [the realization of the creative sector] could happen in Huddersfield. 10 years ago that was mad. Everybody said “no! no!”. But they made CTI.<sup>42</sup>*

The small group of mavericks included Phil Wood (the then assistant head of Cultural Services in the Cultural Services Department), the Director of Proper Job (a drama-based voluntary organization), the Director of a small private company, the Director of Beaumont Street Studios (a music-based voluntary organization) and Sean Leonard. Two of the members belonged to CIK and had produced the report ‘A Chance to Participate’ (see section 6.3.2). In relation to the organization of CTI, Brian Cross commented:

*My own role [in CTI] was overlapping the various initiatives of ‘A Chance to Participate’ made by CIK and moving forward CTI. ...As a result of ‘A Chance to Participate’ I came to work very closely with Lim Lister at Proper Job.<sup>43</sup>*

Most of the members of CTI were also involved in the Forum of Cultural Industries. Such a team structure for making the proposal (the bid document) for CTI is akin again to Nonaka’s concept of a *cross-functional team* (or microcommunity of knowledge) in which the members’ backgrounds and disciplines are varied.

#### *The small group of mavericks as Phase 1 of sharing tacit knowledge*

Nonaka assumes that at Phase 1 of sharing tacit knowledge, the ‘brain-storming’ might occur in a relaxed and informal environment.<sup>44</sup> This was found in drafting the proposal

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<sup>41</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 1(1)

<sup>42</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>43</sup> Interviewed on October 28<sup>th</sup> 2003

<sup>44</sup> Nonaka assumes that when Japanese companies create a new product, ‘brainstorming camps’ are sometimes conducted, which are informal meetings outside the workplace (often at a resort inn

in CTI. Explaining this in an interview with the author, Sean Leonard commented:

*Most of the Creative Town Initiative was created at the café in the media centre. ...We sat around and drunk tea or coffee. ...It was really very informal and it was good fun. We laughed a lot.*<sup>45</sup>

Through the brainstorming at the café in the media centre, the shared mindset and mutual trust (developed through the Forum of Cultural Industries etc.) was enhanced between the members of the *cross-functional team* of ‘mavericks’, that is, CTI. This event clearly illustrates the phase of *sharing tacit knowledge* in Nonaka’s five-phase model (see Figure 6-8).

### ***Phase 2: Creating concepts: The externalization mode***

#### *The new concept of the ‘Creative City’ as Phase 2*

Although *creating concepts* of Phase 2 (the externalization mode of knowledge conversion), according to Nonaka’s five-phase model, usually comes after Phase 1 of sharing tacit knowledge, in the first knowledge spiral of CTI Phase 2 began before phase 1. Before starting to make the CTI proposal, Phil Wood had come up with (or been inspired by) the concept of the ‘Creative City’. Elaborating on this, he explained:

*All my work and inspiration in the previous years [of CTI] was about connecting cultural activities, technology and economic development, linking important people and oriented infrastructures. We wanted to move beyond ‘culture’ because it wasn’t innovative any longer. The ‘Creative City’ is a brand new idea. ...This is absolutely cutting edge thinking. I wanted to be associated with that.*<sup>46</sup>

This clearly suggests that the creation of the new concept of the ‘Creative City’ (as *conceptual knowledge*) is akin to Phase 2 of creating concepts in Nonaka’s five-phase model, which made *explicit* Wood’s tacit feeling (knowledge) that a new concept was needed for promoting cultural activities in Huddersfield (see Figure 6-8).

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drinking Sake and sharing meals) for detailed discussions to solve difficult problems in development projects (see Nonaka & Takeuchi, 1995).

<sup>45</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 1(1)

<sup>46</sup> Interviewed on October 28<sup>th</sup> 2003 also see Appendix2, 3(2)

*‘Creative City’ as a concept, which was ‘not’ externalized from members of CTI*

It can, however, be argued that strictly speaking, in the first knowledge spiral of CTI (like the first knowledge spiral of cultural industries) the new concept of the ‘Creative City’ was, unlike Nonaka’s assumption, not *externalized* from the members of CTI (and Phil Wood in particular). The new concept-creation was actually deeply associated with an idea forwarded by Charles Landry, a UK-based international urban consultant, who over the previous decade had researched and consulted ‘the problems and possibilities of cities in Europe (and beyond)’ ‘in terms of ‘developing the artistic, cultural and social life of cities’ (see Landry & Bianchini, 1995). Charles Landry, for example, did joint research with Dortmund-based academics and consultants and also organized the Creative City workshop in Glasgow in May 1994 (see, Landry & Bianchini, 1995, p10). Through his research and consultancy, Landry identified ‘the importance of a *creative* response to urban problems’ which went beyond traditional professional specialization. Through the research, Landry had developed the idea of the ‘*Creative City*’ around 1994 and published the book called ‘*Creative City*’ in 1995 in collaboration with Franco Bianchini, a professor of the European Cultural Planning at De Montfort University. The book explored the importance of *creativity* to cities in general and economic urban regeneration success in particular (see, Landry and Bianchini, 1995).

At the same time (in 1994) Phil Wood asked Landry to help formulate a cultural policy in Kirklees as an advisor.<sup>47</sup> From this liaison a document of cultural policy named ‘Made in Kirklees’ was produced in April 1994 (KMC, 1994). ‘Made in Kirklees’ sought to identify the cultural roots of the locality and graft onto them new growth appropriate to the current and future needs in Kirklees. In particular, the report identified the rich cultural heritage of choral music and brass bands, also that it was the site of the establishment of Rugby League and a whole diversity of clubs and social organizations, plus an enriched cultural diversity offered by those of Asian and Caribbean identity. Working together, Phil Wood and Charles Landry shared tacit

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<sup>47</sup> Charles Landry’s articles had been also referred in ‘A Chance to Participate’ made by CIK.

knowledge of a mental model. In other words, through such collaborative work, Phil Wood and Charles Landry created *sympathized knowledge* between them. Outlining these developments, Phil Wood explained:

*Clearly the book [The Creative City] was important [as a basis for creating the concept of CTI]. ...In 1995, the concept of creativity was really only talked about in terms of individual creativity, by people like Edward de Bono. No one talked about collective creativity, about creativity across the whole town or city.*<sup>48</sup>

Phil Wood's above account of Edward de Bono's creativity was also found in the text of 'The Creative City' (1995, p18-19). Taking these facts into account, it can be argued that the concept of the 'Creative City' was not *externalized* from the members of CTI, but from the 'mind' of Charles Landry (a consultant) and was found by Phil Wood (a policy-maker) and applied to CTI.

#### ***Phase 4: Building an archetype: The combination mode***

##### *Ways of combination in CTI*

According to Nonaka's five-phase model, after concepts are created, a knowledge-creation process feeds into Phase 3 of *justifying concepts*. In the case of the first knowledge spiral of CTI, however, before the concept was justified, Phase 4 of *building an archetype* had begun. Strictly speaking, Phase 1 and Phase 4 had started at the same time.<sup>49</sup> Sean Leonard commented:

*Half the work [of the proposal making] would be done at the café [among the CTI members]. Then Phil took it away and sat down at the computer and wrote and drafted it. We then redrafted it and amended it [at the café] and all that sort of thing. Half of the work [was done] in the media centre and half of the work [was done] in Phil's head and Phil's computer.*<sup>50</sup>

The above account illustrates that the brain-storming at the media centre (Phase 1) and project-formulation on Phil's computer (Phase 4) occurred as an iterative way. In July

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<sup>48</sup> Interviewed on October 28<sup>th</sup> 2003 also see Appendix2, 3(2)

<sup>49</sup> In addition, some projects were created before CTI emerged.

<sup>50</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 1(1)

1996, 16 individual projects were created and formally incorporated into a proposal in an *explicit* form, and then submitted to the European Commission where Urban Pilot Projects (UPPs) are organized. The projects included a wide range of regeneration themes (such as business startups, training and skills, business development and physical infrastructure) in the creative (cultural) sector (see Table 6-8). The production of the CTI proposal is akin to Phase 4 of *building an archetype* (the *combination* mode of knowledge conversion) of Nonaka's model (see Figure 6-8). This was so in two ways; (1) the *combination* of the new concept of 'creativity' with existing cultural activities (knowledge) into each individual project in CTI (see Table 6-8) and (2) the *combination* of the CTI individual projects into an integrative framework, which was called *the cycle of urban creativity* (see Figure 6-7 & Table 6-9).

*The combination of a new concept of 'creativity' with the existing cultural activities*

Table 6-8 shows how a new concept of 'creativity' was *combined* with the existing cultural activities (knowledge) in each individual CTI project.

Table6-8: Projects created in CTI and their knowledge combination

	Project title	Project objectives	Knowledge combination
A1	National centre for Sonic Arts	To develop for the UK national facility for education and performance of electro-acoustic music and sound	Infrastructure + <i>music (creative) technology</i> + music education
A2	Tele-homes (Creative Loft)	To convert a Grade II listed building to 21 living/workspace units for creative businesses	Grade II listed building + living & workspace infrastructure + infrastructure for <i>digital (creative) media</i>
A3	Hothouse units	To provide four 15 sq m workspace units for creative businesses	Incubation space + infrastructure for <i>digital (creative) media</i>
A4	Creative shop (CREATE!)	To provide a publicly accessible 'shop window' for innovative products, services and ideas	Shop + <i>creative products</i>
B1	ADAPT	To create CD-ROM (an interactive multimedia) to promote new ideas	Interactive multimedia + <i>creative idea</i>

B2	Advisory service for inventor	To provide advisory and feasibility assessment for individuals with innovative concepts or products	Consultancy + <i>creative idea</i>
B3	MIDAS	To provide training in creative ideas for creative entrepreneurs using CD-ROM (B1)	Training + interactive multimedia + <i>creative idea</i>
B4	Creative skills development programme	To provide training for disadvantaged people using drama as a means of creating transferable skills	Training + ( <i>creative</i> ) <i>drama</i>
B5	Creative forum	To provide a meeting point between experienced practitioners and people with creative potential	Forum + <i>creative idea</i>
B6	Creative investment services	To provide investment services to innovative cultural and media businesses	Investment + <i>creativity</i> + business
B7	Cultural economy database	To establish a database of creative/cultural industries in the Huddersfield area	Database + <i>creative</i> / <i>cultural industries</i>
B8	Enter & return	To provide IT-based training	Training + <i>IT (creativity)</i>
B9	Innovation challenge forum	To create an opportunity to analyse the needs of local business in terms of innovation	Forum + analysis + <i>innovation (creativity)</i>
B10	Northern creative alliance	To create a PC design magazine to support a campaign to retain creative design talent	Magazine + <i>creative design</i>
B11	Sonic Arts educational programme	To establish the UK's leading body for training in application of electro-acoustic music and sound	Music ( <i>creativity</i> ) + technology + education
D1-6	Dissemination projects	To disseminate the process, achievements, outcome of CTI	<i>CTI (creative) projects</i> + dissemination

(Note A: Capital infrastructure projects, B: People-oriented projects and D: Dissemination projects)

The above table shows that each individual project has some characteristic of 'knowledge combination'. Firstly, many of the people-based projects *combined* the existing (training) programmes (for both unemployed and talented people) with the development of personal *creativity* (e.g. creative skills development programme and MIDAS). Secondly, in the infrastructure projects, the provision of infrastructure for multi (digital) media was thought to *add* values to the existing building infrastructure, which was viewed as new knowledge (e.g. Tele-homes and Hothouse units). Thirdly, some of the projects tended to regard the utilization of IT or multi-media as creativity

(e.g. ADAPT, Enter and return), which is the same tendency seen in the literature related to KM in the Northern European context, where the utilization of information technologies was regarded as knowledge management (see Chapter 3). Moreover, physical infrastructures for creative industries were aggregated (*combined*) to a neglected area where derelict Grade II listed buildings existed, aimed at creating a 'Creative Quarter' or 'Creative Cluster' in which the Media Centre is at the core (e.g. National centre for Sonic Arts, Tele-homes and Hothouse units).

*The combination into an integrated framework; the cycle of urban creativity*

As mentioned earlier, CTI not only *combined* the new concept of creativity with existing cultural projects (knowledge) in the cultural sector, but also *combined* (incorporated) each individual project into a newly-devised conceptual model of the *cycle of urban creativity*. The model has 5 stages (see Figure 6-7) and is designed to fit the proposed projects of individual actions, so that one project feeds into the next and becomes an integrated, coherent whole' (KMC, 1996). Table 6-9 shows the relationships between the model of the cycle of urban creativity and the individual programmes in CTI.

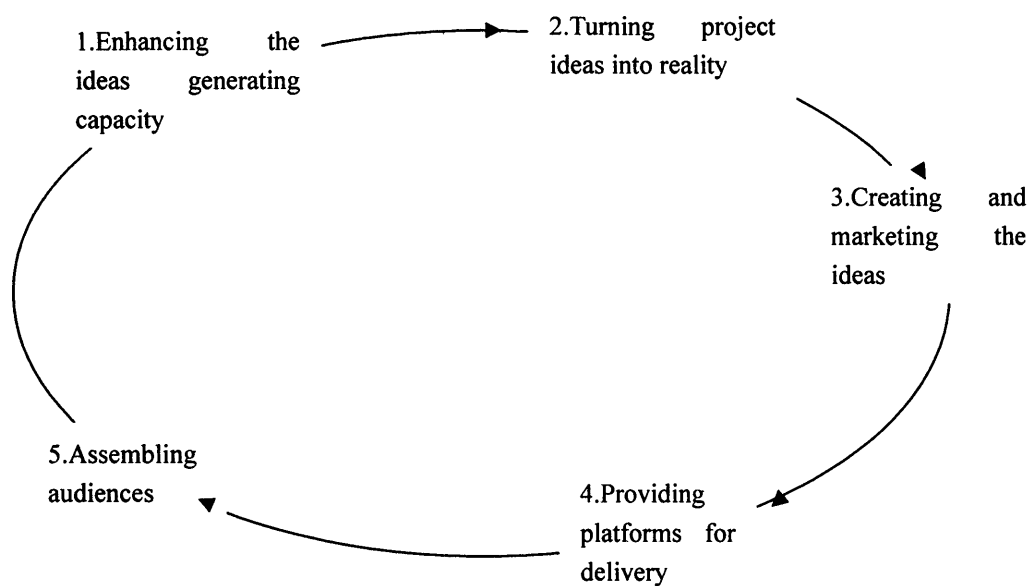







Figure6-7: The model of the cycle of urban creativity (Source: CTI, 1996)

Table6-9: Relationship between the model of the cycle of urban creativity and the individual programmes in CTI (Source: Author, based on CTI, 1996)

The stages of the cycle of urban creativity	Individual projects
Objective 1: To enhance the ideas generating capacity 	<ul style="list-style-type: none"> <li>● B4: Creative skills development programme</li> <li>● B8: Enter &amp; return</li> <li>● B11: Sonic Arts educational programme</li> <li>● B5: Creative forum</li> </ul>
Objective 2: Turning project ideas into reality 	<ul style="list-style-type: none"> <li>● B3: MIDAS (Creative business development)</li> <li>● B6: Creative investment services</li> <li>● B2: ADAPT (CD-ROM programme)</li> <li>● B9: Innovative challenge forum</li> <li>● B2: Advisory service for inventors</li> </ul>
Objective 3: Circulating and marketing the ideas 	<ul style="list-style-type: none"> <li>● B7: Cultural economy database</li> <li>● A4: Creative shop</li> <li>● B10: Northern creative alliance</li> </ul>
Objective 4: Providing platforms for delivery 	<ul style="list-style-type: none"> <li>● A1: The centre for creative media</li> <li>● A2: Tele-homes (Creative loft)</li> <li>● A3: Hothouse units</li> <li>● Kirklees media centre</li> </ul>



Objective 5: Dissemination (assembling audiences)	<ul style="list-style-type: none"> <li>● D1: Dissemination database</li> <li>● D2: Exchange visits</li> <li>● D3: Seminar programme</li> <li>● D4: International conference</li> <li>● D5: Publications</li> <li>● D6: Global ideas bank</li> </ul>
 Objective 1: To enhance the ideas generating capacity	

The model was created mainly by Landry using his *embrained knowledge* (the individual dimension of systemic knowledge), rather than by using local (tacit) knowledge which the members of CTI have. Landry evolved the model from Michael Porter's notion of the value chain.<sup>51</sup> In relation to the idea of the cycle of urban creativity, in an interview with the author, Brian Cross critically commented:

*There was the theory of the cycle of urban creativity. ...I think it was posterior rationalization. I don't think they [the CTI projects] did actually reflect that theory.*<sup>52</sup>

Toby Hyam also commented as follows:

*I thought it [the proposal of CTI] was bold, idealistic and interesting. The strategic framework seemed fine. ...I did think it was unlikely to deliver the vision they had hoped for, but that the increased awareness and investment would be really beneficial.*<sup>53</sup>

The above comments clearly illustrate the dominant nature of 'embrained knowledge' in the idea of the cycle of urban creativity.

### ***Phase 3: Justifying concepts***

After the CTI proposal was completed, the whole project went through the formal committee system in KMC and was approved by the Council, which financially contributed to the CTI project. It was also approved by Huddersfield Pride, an urban regeneration organization, a body which would be looking after CTI if it received

<sup>51</sup> Interviewed on October 28<sup>th</sup> 2003 also see Appendix 2, 2(2).

<sup>52</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>53</sup> Interviewed on October 31<sup>st</sup> 2003

approval by the European Commission. In April 1996, the CTI bid was submitted to the European Commission as an Urban Pilot Projects (UPP) proposal under article 10 of the ERDF regulations. In July 1997, it was chosen by the Europe Commission as one of the 26 winners of the competition from over 500 entries<sup>54</sup> to run a programme of 16 separate experimental projects over a three-year period. In other words, using Nonaka's terms, the proposal as an *archetype* was 'justified' against the criteria of UPPs' implementation, which in turn illustrates *Phase 3 of Justification* in Nonaka's five-phase model.

### ***Phase 5: Cross-levelling knowledge***

The CTI proposal had an impact on members of CTI. In his meeting with the author Sean Leonard commented:

*I suppose ....Huddersfield was intentionally building its creative economy capacity [through UPP projects]. We developed the media centre. We are proposing the creative sector as one of many solutions to deal with the decline of traditional industries.... Around that development of a creative economic sector, there was, I suppose, a small group of mavericks. ...who were pursuing this strategy.*<sup>55</sup>

The above account suggests that knowledge created through the CTI proposal making was *internalized* in the actors of CTI (the internalization mode of knowledge conversion) and that this led them to self-define themselves as the 'creative sector'. Brian Cross also commented:

*CTI through Enter and Return Programmes brought me into close contact with BSS [Beaumont Street Studios], who had not been so active in the days of 'A Chance to Participate'.*<sup>56</sup>

Cross's account suggests that the socialization mode of knowledge conversion also occurred through CTI. Moreover, the activity of CTI ensured continued strategic

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<sup>54</sup> This is the second phase of UPPs. During the first phase of UPP from 1990 to 1993, a total of 33 UPPs were initiated in 11 member states under the aegis of Article 10 of the ERDF.

<sup>55</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 1(2)

<sup>56</sup> Interviewed on October 29<sup>th</sup> 2003

support across the town. Elaborating on this, Toby Hyam explained:

*The concept of creativity was a significant factor leading Huddersfield in an effective direction. In addition, observing the success of the Media Centre and some of the CTI projects means that Huddersfield has continued to back the Creative Industries as a potential and real growth area for the town. CTI ensured continued strategic support across the town.*<sup>57</sup>

This is echoed by Tess Butler who commented:

*The Council, European Unit, Yorkshire Forward are all looking to grow the knowledge sector and the creative sector. It's a key cluster. In Regional Economic Strategy made by Yorkshire Forward, we got up there in front because of doing the Creative Town Initiative and getting the Media Centre strong.*<sup>58</sup>

In addition, the national government minister for regional and local development, Richard Caborn, chose Huddersfield to launch a keynote speech in February 1999 for Britain's new Regional Development Agencies, in which, by stating that creativity was the greatest asset regions have, he gave national endorsement to CTI. All this suggests that through CTI, Huddersfield has become a regional centre of excellence for creativity, and the use of creativity as an urban regeneration strategy has moved from the margins to the mainstream in Huddersfield (Landry, 2000).

KMC has also incorporated the key CTI ideas into the other programme for urban regeneration, called 'Platform for Change', in an attempt to infuse creativity into the heart of communities. Elaborating on this, Sean Leonard explained:

*We did actually recycle some of the concepts used in CTI, such as the Creative Town, the cycle of creativity and the creative thinkers, for a bid I worked on later, which was SRB Round 5, 'Platform for Change'. This was a successful bid. Moreover, New Deal for Creative Industries was run by BSS, not SRB though.*<sup>59</sup>

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<sup>57</sup> Interviewed on October 31<sup>st</sup> 2003

<sup>58</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>59</sup> Interviewed on October 31<sup>st</sup> 2003

In relation to this, Tess Butler also commented:

*SRB 5 included a lot of programmes which started from CTI and cultural types of things have been continued in SRB 5.<sup>60</sup>*

Moreover, the Chamber of Commerce, the Training and Enterprise Council (TEC) and the University of Huddersfield's Business School have also sought to be associated with the CTI initiatives. In relation to this, Tess Butler commented:

*John Thompson [a professor of entrepreneurship at the University of Huddersfield's Business School] came to me with an idea of a 'Business Generator'. Rosemarie Lees [the financial manager of CTI] and I helped to start the project by finding available funds from CTI, SRB and Objective 2. It's a great success. This project helped take a lot of mainly young graduates into business and digital based business such as E-commerce or that kind of stuff.<sup>61</sup>*

Her comments were echoed by Professor John Thompson who commented:

*I met Phil Wood about a year or 18 months before Business Generator opened. At that time, CTI was under way. The money was almost allocated to be spent. Huddersfield Pride and CTI financially helped establish the Business Generator for the first three years.<sup>62</sup>*

It can be said from all the above accounts that the concept of creativity and the intentions of CTI have been *internalized* into (by) *and cross-levelled* to major policy-makers and the main actors in Huddersfield.

Furthermore, the activity of CTI attracted people from other geographical areas. Within specialists of the urban regeneration field, Huddersfield has been attracting foreign visitors on an unusual scale, particularly from large European cities, such as Bologna, Berlin, Vienna, Tilburg and Helsinki, anxious to be at the forefront of urban revitalization (Landry, 2000). Anamaria Wills was also attracted by the CTI initiative.

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<sup>60</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>61</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>62</sup> Interviewed on October 30<sup>th</sup> 2003

She became one of the key actors of the second knowledge spiral of CTI, as will be illustrated in the next section. In her meeting with the author, she explained:

*I came to Huddersfield by accident. I had been working in London and I went to Yorkshire Arts, which was the Arts Council in Yorkshire. They told me that they [Huddersfield] were doing some interesting work there. ...So I came to Huddersfield.*<sup>63</sup>

Wills' above account suggests that the unique story of CTI as the first knowledge spiral spread across Yorkshire by word of mouth and in-house publications and also beyond Yorkshire to London. In other words, the newly created knowledge was *cross-levelled* (transferred) beyond the town of origin, which also illustrates Phase 5 of *cross-levelling of knowledge* in Nonaka's five phase model (see Figure 6-8). This sub-section has identified the presence of the framework of Nonaka's five-phase model in making the CTI proposal (summarized in Figure 6-8).

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<sup>63</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix4, 1

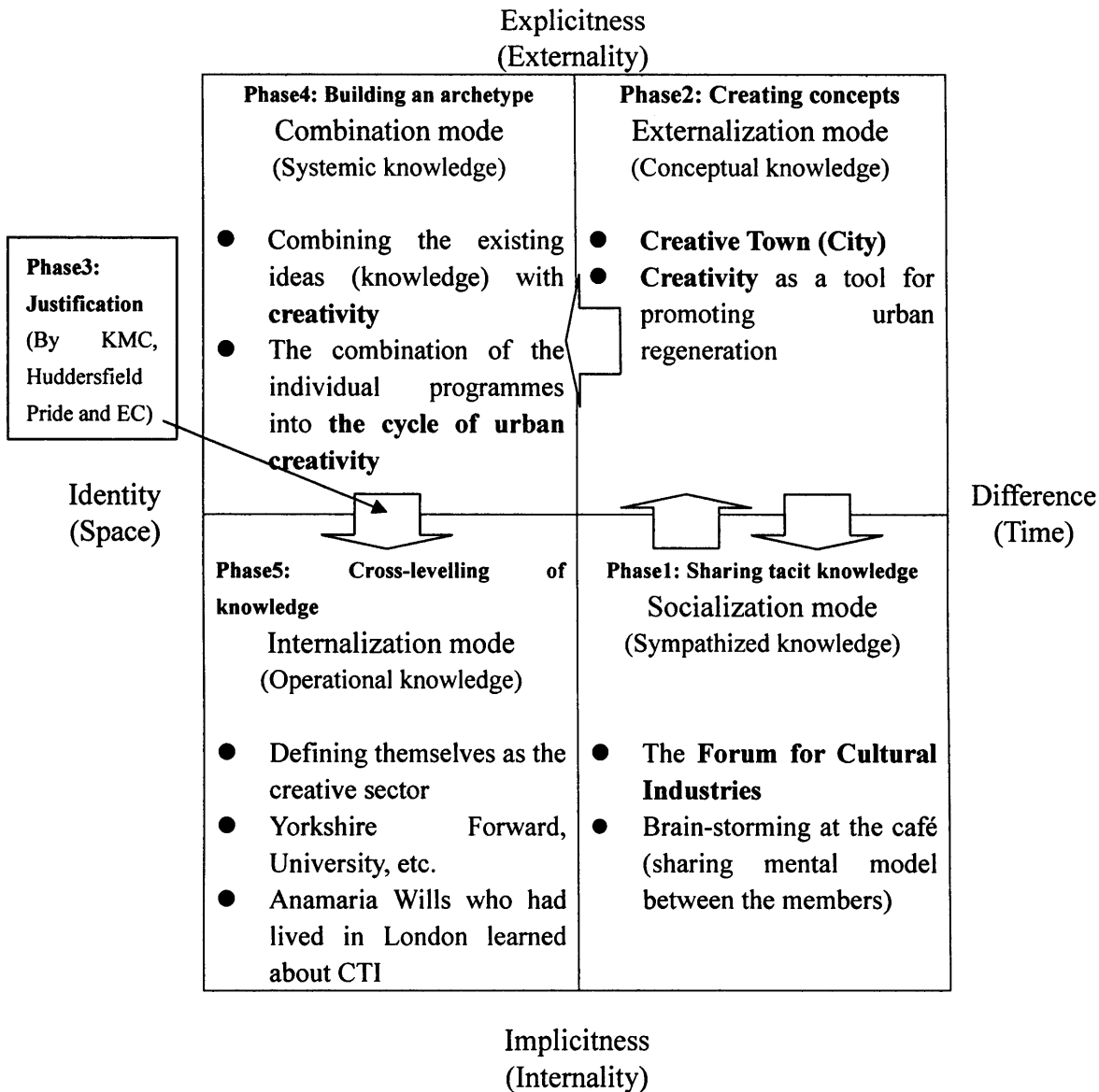


Figure6-8: The first knowledge spiral of CTI within Nonaka's five-phase model framework (source: Author)

### 6.3.5 Nonaka's five enabling conditions for organizational knowledge creation in the first knowledge spiral of CTI

This sub-section illustrates and examines *Nonaka's five enabling conditions* in the first knowledge spiral (the proposal-making process) of CTI, which Nonaka assumes will facilitate the processes of organizational knowledge creation.

### ***The first condition: Organizational intention***

Most urban regeneration programmes in the UK are initiated with an eye on particular sources of finance. The finance providers in turn will have their own criteria (or requirements) to assist in the selection of proposals (bid documents) for regeneration. Nonaka assumes that *organizational intention* (an organization's aspiration to its goal) as a form of corporate strategy facilitates the process of (organizational) knowledge creation and that this provides the most important criteria for judging a piece of knowledge in an organization. It can be considered that in the first knowledge spiral of CTI, the criteria for the European Commission as the finance provider to assist in the selection of the proposal submitted to Urban Pilot Projects (UPP) played an *organizational intention* because the CTI proposal was formulated and judged (approved) against the criteria. There are four criteria to assist in the selection of proposals for UPPs made by the European Commission; namely, (1) a theme of urban planning or regeneration of European interest, (2) the innovatory character or a new approach proposed by an initiative, (3) the demonstration of the potential of a proposal and (4) the contribution to regional development (see Drewe, 2000). Of the four main principles, the second seems to be significant because it clearly highlights support for 'innovation or a new approach' in urban regeneration and planning within the framework of the broader community policy for promoting economic and social cohesion (see [http://europa.eu.int/comm/regional\\_policy/urban2/urban/upp/src](http://europa.eu.int/comm/regional_policy/urban2/urban/upp/src)). Elaborating on this, Phil Wood explains:

*The European Commission provided an opportunity to the bid for funding under the Urban Pilot Projects Programmes, which had its own criteria. They invited towns and cities in Europe whose urban regeneration plans could provide benefit both to their towns and to other towns in Europe as best-practices. It had to be innovative and new. We had to sit down and say OK, we would like to find money for our projects. How innovative is it in a European context? That helped to narrow the field down.*<sup>64</sup>

The above quotation clearly suggests that the criteria (recommendation) from the European Commission to take on a more innovative approach to address urban

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<sup>64</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix 2, 4(1)

problems facilitated the first knowledge spiral of CTI (or at least justified its direction). This was particularly because at that time the concept of the 'Creative City' represented unique or 'cutting edge thinking'<sup>65</sup> in the urban regeneration context and was therefore 'hard to apply'.

### ***The second condition: Individual and group autonomy***

Whilst overall responsibility for management and delivery of the programme of CTI was vested in KMC, the programme has been overseen by Huddersfield Pride Ltd (an agency established specifically to deliver regeneration programmes) in Huddersfield. An overall management board comprising key stakeholders has acted as guardian of the vision and has monitored the performance of the programme since its initiation (MTL, 2001). Nonaka assumes that an organization in which *autonomy* is given at both *individual* and group (*collective*) levels is likely to create new knowledge because it provides individuals with the chance of introducing unexpected opportunities and a group with greater flexibility. Both individual and group autonomy was found in the first knowledge spiral of CTI. The organizational structure of the cross-functional 'small group of mavericks' who were from diverse backgrounds, was, as mentioned earlier, a testimony to *group autonomy*. Expanding on this, Wood explained:

*In some respects, we had some freedom. We were able to try projects that might fail. ...They [the Council, Huddersfield Pride Ltd and EU] allowed me a lot of autonomy to the extent that I was able to choose to pick my management board. I decided who was going to be chairman of my management board, which would not happen in other many places. Yes, I was given enormous freedom. I was allowed to do pretty much what I liked.*<sup>66</sup>

This illustrates that considerable autonomy was given to the manager of CTI and the group, which was allowed to be self-managed. Table 6-10 shows the management board of CTI.

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<sup>65</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 4(2)

<sup>66</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 4(2)



Table 6-10: Management board of CTI (Source: CTI, 1995)

●	Kirklees Metropolitan Council (LMC)
●	Huddersfield Pride Ltd (HP)
●	University of Huddersfield
●	Huddersfield Technical College (HTC)
●	Calderdale and Kirklees Training and Enterprise Council (TEC)
●	Business Link Calderdale and Kirklees (BLCK)
●	Kirklees Media Centre
●	Yorkshire and Humberside Arts Board
●	Beaumont Street Studios (BBS)
●	Artimedia
●	Proper Job Theatre Company
●	The Propaganda Group
●	The Sonic Arts Network
●	Commedia

Sean Leonard also provided a further insight into the freedom (autonomy) provided, explaining:

*Normally a bid is within well defined parameters, setting out what you are allowed to bid for, what the idea can be and that sort of thing almost a proposal straight jacket. You learn to work within these confines. However, this was different. Be as creative as we want. Let one's ideas flow, nothing like the normal straight jacket of [other] European funding. We were allowed to think as broadly as we could. Of course, that's liberating in some ways. 'You start to dream about it'.<sup>67</sup>*

This account illustrates that the structure of the UPPs itself enabled the individuals and the group to have considerable autonomy in creating their proposal. In short, the high level of individual and organizational autonomy observed in the first knowledge spiral of CTI is consistent with Nonaka's premise.

### ***The third condition: Fluctuation / creative chaos***

As mentioned earlier, the negative analysis of KMC made by an INLOGOV in 1988 and the consequent ongoing governmental restructuring of KMC carried out by John Harman contributed to creating a certain degree of *fluctuating* and *chaotic* environment within KMC, which also affected the CTI proposal making. Apart from this, there was a

<sup>67</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 2(2)

*crisis* to people associated with the Cultural Services Department (including their associated voluntary organizations) in KMC before CTI was organized. This was related to the Single Regeneration Budget (SRB). In 1994, there was an opportunity for KMC (and Huddersfield) to receive bid funding from the UK Government under the SRB Round 1, which was the first urban regeneration programme for Huddersfield. In order to deliver SRB Round, KMC established the urban regeneration company called Huddersfield Pride Ltd. KMC decided to enter the bid and invited all related departments and organizations (including the cultural sector, transport and the environment) to contribute to the bid document.<sup>68</sup> KMC then gained approval for a programme of action for Huddersfield on a 7 year basis. The problem, however, occurred to the people associated with the cultural sector. In an interview with the author, Phil Wood recalled:

*Enormous work was done by the cultural sector in preparing this bid [SRB round 1]. ...Government said yes we like this bid, we are going to give you money. ...Everybody won 'Hurray! Hurray!'. Then, the Council said to 'cultural people', 'we have got bad news for you. We took all cultural projects out of the bid' at the very last minute. That was a very bad time for us. We were very, very angry because we felt we contributed some of the best ideas to this project and those were taken out. We were left with nothing, nothing to show for our efforts. All people here [at CTI] were very bitter. ...We were looking for an alternative. We all had plenty of energy and emotion. We needed to find an outlet. ...and I guess, [at that time] we were hungrier than anybody else.<sup>69</sup>*

Wood's account is supported by Tess Butler, who commented:

*Huddersfield Pride was established when SRB Round 1 money was won for Huddersfield. SRB was for quite a lot of property development, that was £ 8 million. Many of the projects were related to building development such as the Media Centre and Creative Lofts. We focused on a sort of physical development.<sup>70</sup>*

That is KMC (and Huddersfield Pride), at the very last minute, decided to focus the urban regeneration project on physical infrastructure (such as the refurbishment of

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<sup>68</sup> A new organization for urban regeneration called Huddersfield Pride Ltd was also set up for the delivery of the programme.

<sup>69</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix2, 4(3)

<sup>70</sup> Interviewed on October 29<sup>th</sup> 2003

historic building for residential and commercial use, the construction of new business floor-space and the improvement of the quality and safety of the town centre environment).<sup>71</sup> As a consequence, the soft infrastructure programmes such as cultural elements for urban regeneration were taken out of the SRB programme. The Council's last minute decision produced negative environments around the cultural sector akin to the *fluctuating* and *chaotic* conditions which Nonaka assumes facilitate knowledge creation. This then created a source of strong power and motivation with which 'cultural people' were keen to participate in the CTI proposal seeking funding for their projects.

#### ***The fourth condition: Information redundancy***

According to Nonaka, for organizational knowledge creation to effectively take place, an idea created by an individual or a group needs to be shared by other individuals who may not need to use it immediately. This is called *Information Redundancy*, the existence of information that goes beyond the immediate operational requirements of organizational members. In the first knowledge spiral of CTI, some redundancy of information was found. Explaining this during an interview with the author, Sean Leonard commented:

*We sat around, came up with various ideas and knocked them around, really. Sort of me and Peter Jones used to discuss ideas together. We came up with some ideas, not among 'them' [the members of CTI]. ...I am sure Phil and me did the same [thing]. I am sure David Wyles and Phil did the same.*<sup>72</sup>

The above quotation clearly illustrates that *information redundancy* existed among certain members at different times in making the CTI proposal through over-lapping or redundant job descriptions. This promoted the sharing of their perspectives and beliefs (tacit knowledge) as individuals sensed what others were trying to articulate. However, some (voluntary) organizations responsible for formulating their own CTI projects were not included in the process and simply thought only about their projects, which in turn

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<sup>71</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>72</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix3, 2 (4)

restricted *redundancy* of information.<sup>73</sup> In this sense, information redundancy can partially be observed in the first knowledge spiral of CTI.

***The fifth condition: Requisite variety***

Nonaka suggests that *requisite variety* is one of conditions that advances knowledge creation within an organization. As mentioned earlier, the members responsible for the CTI proposal were varied, which clearly illustrates that some sort of *requisite variety* existed in the organizational structure. This went beyond a department in the local authority. There was, however, a limitation of requisite variety. Toby Hyam, the director of the media centre, argued in the Regional Review (July, 2002) that:

*One of the disadvantages of having successfully established a cluster is that it can become like a club: accessible only to those 'in the know'. Whether you have 2,000 or 20,000 square meters, if you are trying to add value to that community, rather than simply derive profits from it (as in the case of most commercial business centres), the restrictions of a building are inherent limiting factors.*

Elaborating on this, in an interview with an author Toby Hyam commented:

*The weakness [of CTI] was that it still remained within the quite 'club' organizations and I think if we were going to the level [of] the 'bland' to get an impact across the wider town, [CTI] needed breath more than just by 'group' organizations. ...We had to find the way of bringing about more commercial sector involvement in that [CTI] network.<sup>74</sup>*

Toby Hyam viewed CTI as an organization which was limited to existing voluntary cultural suppliers, who were the 'old and close friends' and had built trust in each other. He in turn thought this excluded the economic business sector. Hyam's account was also supported by the comment in the evaluation report on CTI made by MTI (2001), which commented that the limited role of the private sector in the early stages led to the initiative being considered another public sector regime. In other words, *requisite variety* was restricted to some extent in the first knowledge spiral of CTI in that the role

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<sup>73</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix 2, 4(4)

<sup>74</sup> Interviewed on October 31<sup>st</sup> 2003. This is also pointed out the other interviewee on October 30<sup>th</sup> 2003 and Final Report of *Huddersfield Creative Town Initiative: Evaluation of a Pilot Project Under Article 10 of the ERDF* made by the MTL consultants (2001).

of the commercial sector was not adequately considered.

### **Conclusions**

In short, the five conditions which Nonaka assumes facilitate organizational knowledge creation were to some extent observed in the first knowledge spiral of CTI. Table 6-11 shows the extent that Nonaka's five organizational conditions have been observed. Firstly, innovation for and a new approach to urban regeneration as criteria of the UPPs gave (or at least justified) the *organizational intention* of CTI, which facilitated the concept of 'creativity'. Secondly, *fluctuating* and (*creative*) *chaotic* environments were created after the cultural projects created by people associated with the cultural sector were taken out of SRB Round 1. Thirdly, the small group of mavericks in CTI was both individually and collectively given full *autonomy* by the Council, the European Commission and Huddersfield Pride. Fourthly, there was some *redundancy* of information in CTI in that certain members of CTI had over-lapping job descriptions. However, some projects were created only by the delivery organizations without collaboration with the other members of CTI. Moreover, *requisite variety* existed to some extent in that each member of the CTI came from different backgrounds, notwithstanding the fact that it was restricted to the existing cultural suppliers and the participation of the private business sector was limited.

Table6-11: Nonaka's five organizational conditions in the first knowledge spiral of CTI (Source: Author)

<b>Nonaka's five conditions for knowledge creation</b>	<b>The first knowledge spiral (proposal-making) of CTI</b>
<b>Organizational intention</b>	High (UPP calls for innovative projects)
<b>Individual and group autonomy</b>	High (an informal small group of mavericks)
<b>Fluctuation / Creative chaos</b>	High (cultural projects were taken out of SRB1)
<b>Information redundancy</b>	To some extent (some projects were created based on the order-lapping job description, but others are not)
<b>Requisite variety</b>	To some extent (few people in the private sector were invited)

### **6.3.6 The second knowledge spiral of CTI: Illustrating Nonaka's theoretical frameworks in the creation process of the showcase programme**

Sub-section 6.3.4 illustrated the presence of Nonaka's five-phase model framework in the processes of the CTI proposal making (regarding it as the first knowledge spiral of CTI). Sub-section 6.3.5 has also illustrated the presence of Nonaka's five conditions for knowledge creation. This sub-section aims to examine the presence of these theoretical propositions in the process of creating the *showcase programme*; a programme which supports the disadvantaged to enter the creative sector. The programme was formalized by the Creative Industries Development Agency (CIDA), a newly created voluntary organization established while implementing the CTI projects. The process is regarded as a post-CTI movement and referred to as *the second knowledge spiral of CTI*.

#### ***Phase 1 (1): The failure of Phase 1 of sharing tacit knowledge***

##### ***Change to delivering the individual projects***

In July 1997, CTI gained approval for the UPPs programme of actions from the European Commission. Although the delay from bid submission to approval had the effect of dampening initial enthusiasm, particularly with the delivery pressures associated with the emergence of other new initiatives and priorities (MTL, 2001), CTI changed to delivering the individual projects (created through the first knowledge spiral of CTI). This plan was scheduled for completion (in terms of payment) by June 2000, but was later extended to November 2001 and the whole plan relating to CTI was also implemented by using about £ 7 million of other funding, such National Lottery, SRB and English partnership.

##### ***Problems in implementation***

There were some problems in implementing the individual projects in CTI. The projects such as the National Centre for Sonic Arts (A1) and the Creativity Investment Service (B6) failed to materialize, but the extension of the Media Centre and Creative Technology Challenge were substituted for them. The people-oriented projects, such as the Creative Forum (B5) and Innovation Challenge Forum (B9), also failed to produce the anticipated results (see MTL consultants, 2001). This is partly because the creator of

those people-oriented projects could not actually drive the projects at the time.<sup>75</sup> These facts support Nonaka's assumption of the importance and difficulty of transferring tacit knowledge (such as perspectives, intentions or even motivations) from one (a project's creator) to others. It can be also argued from Nonaka's theoretical view that this happened because of the restriction of *information redundancy* and *requisite variety* (e.g. not enough over-lapping jobs among the members and little participation from the private sector).

#### *Anamaria Wills' move*

Anamaria Wills' move from London to Huddersfield not only (as mentioned earlier) illustrated Phase 5 of cross-levelling knowledge in the first knowledge spiral of CTI (see Figure 6-8), but can also be seen as the starting point of the second knowledge spiral of CTI, which will be illustrated in this sub-section. In an interview with the author, Anamaria Wills commented:

*The work I had been doing in London was working with disadvantaged people, helping them to get skills and jobs in the creative sector. ...I thought what was happening in Huddersfield was that they were doing something around what I was doing in London.*<sup>76</sup>

In this sense, Anamaria Wills had *virtually* shared, to some extent, with the members of CTI *a belief* and *perspective* (tacit knowledge) that creativity was a useful tool for economic urban regeneration and a creative approach to urban regeneration was worth trying.

#### *Disappointments in CTI*

Although Anamaria Wills participated in CTI as a new manager of Creative Shop (then Create! and finally CIDA),<sup>77</sup> she soon became demoralized as her comments below suggest:

*Huddersfield's CTI was not what I had expected. ...They had a couple of projects that*

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<sup>75</sup> Interviewed on October 31<sup>st</sup> 2003, also see Appendix2, 1(3)

<sup>76</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix4, 1

<sup>77</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix4, 1

*supported work with disadvantaged people [of the kind I was doing in London]. It did not seem enough to me. ...The whole idea [of the cycle of urban creativity] was put together by people who lived and worked in the arts in Huddersfield for years, years and years. They just sat in the pub with packets of cigarette, saying you could do this, you could do this and you could do that. They put them all together [into the document] and then claimed this is a Creative Town. [It seems to me] They saw CTI as a means of [financially] sustaining the [voluntary] work they were already doing. It did not seem real to me. ...There was no sense of common purpose amongst the different projects [in CTI]. There was no attempt to bring managers of all different [specializations] together to have a single goal. That was the fundamental flaw. It did not seem real to me.<sup>78</sup>*

### *Difference in perspective (tacit knowledge)*

Anamaria Wills' above account suggests that although she shared the same perspectives as the members of CTI (that the creativity sector has a high potential for addressing urban problems, including unemployment among the disadvantaged in particular), she also had a sense of incongruity (which can be taken to be a form of tacit knowledge) with them as regards the way or perspective of delivering the training projects for the disadvantaged.

### *The failure of Phase 1 of sharing tacit knowledge*

In an attempt to resolve her sense of incongruity and to reorient *their perspective* (tacit knowledge) on the training projects for the unemployed, during between 1998 and 1999 Anamaria Wills asked to hold meetings with CTI members. Her attempt corresponds to Phase 1 of *sharing tacit knowledge* in Nonaka's five-phase model in the second knowledge spiral of CTI. The meetings, however, took place only three times over the two years and rather than converging the projects on a common purpose (in accordance with the idea of the cycle of urban creativity in the CTI proposal), it was a just place where the different project managers exchanged information about what they had already done. In other words, they became opportunities for each organization to sustain and protect its own territory, at least Anamaria Wills felt so.<sup>79</sup> In this sense, *sharing* the same perspective between Anamaria Wills and the managers of the voluntary

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<sup>78</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix4, 3(1)

<sup>79</sup> Interviewed on October 30<sup>th</sup> 2003 (also see Appendix4, 3(1)) and Interviewed on October 28<sup>th</sup>, 2003 (also see Appendix2, 4).



organizations on implementing the CTI training projects did not occur successfully. Thus, the 'first' attempt of Phase 1 of sharing tacit knowledge in the second knowledge spiral of CTI, failed (see Figure 6-9).

### *Difficulty of sharing tacit knowledge*

The fact of this failure suggests that at the delivery stage, it is difficult to share between a newcomer and the existing members of CTI, who were delivering the CTI projects (supplying cultural training) the new tacit knowledge of perspectives which were needed to change the mindset of the existing members. This might be because the newcomer had not shared the same *experience* and *perspectives, trust* or *common feelings (tacit knowledge)* which had been created between the existing members through previous events (such as the Forum of Cultural Industries between 1990 and 1991, and the proposal making process between 1995 and 1996). It might also be because although at the 'proposal making' stage they had the same purpose of getting financial support from the European Commission, which motivated some collaboration between the organizations, such motivation was lost in the implementation stage.

### *Phase 1 (2): Accumulating tacit knowledge*

#### *IEI research as accumulation of tacit knowledge*

In order to resolve the sense of her incongruity and explore her 'reality' regarding the role of the voluntary organizations that were providing training programmes for the unemployed in the creative sector of Huddersfield between January and April 1999, Anamaria Wills, with a colleague, organized a small group<sup>80</sup> to undertake a piece of research. The preliminary research, entitled '*Increasing Employers Involvement in Training and Professional Development in the Creative Industries*' (IEI), included *comprising meetings* with a wide range of agencies, such as HEFCE, the Arts Council, DCMS, International Managers' Forum, ERA and Metier (Corner & Wills, 2000). Through this, they identified the current situation with regard to the development of training for those who wanted to obtain jobs in the creative sector (in national, regional

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<sup>80</sup> The series of activities started in order to implement Create!, one of the CTI projects, but the original agenda of Create! was completely changed.

and local contexts) (Corner & Wills, 2000). The comprising meetings Anamaria Wills and her colleague held (rather than the more technically statistics-based research based on rational theories of planning) illustrate Phase 1 of *accumulating (rather than sharing) tacit knowledge* in Nonaka's five-phase model because through them they *accumulated* plenty of contemporary context-specific (*tacit*) rather than universal knowledge on training programmes for the disadvantaged in national, regional and local contexts (see Figure 6-9).

#### *Focus group meetings in Yorkshire as accumulation of tacit knowledge*

After completing the research on training programmes in creative industries, between June and November 1999 Anamaria Wills and her colleague returned to Yorkshire to conduct some feasibility research from this experience. Elaborating on this in an interview, Anamaria Wills explained:

*We came back to Yorkshire and we talked to a lot with people from the business sectors. I do not remember how many [people] we talked to. We talked to those who worked in the creative sector, [including] employers and large and small businesses. We talked to subsidized businesses, commercial businesses. We talked to people across all art forms, [in] new media, theatre, dance, the circus, writing or whatever. We spoke to all kind of different people whom we could speak to. We also ran a series of focus group meetings. What we tried to find out was how to involve employers in the [creative] sector in the training skills agenda.<sup>81</sup>*

Anamaria Wills and her colleague held the two focus group meetings with some 20 employers in Yorkshire's creative industries in order to examine their views (tacit knowledge) of training and skills development for (potential) employees in the creative industries in Yorkshire in general and Huddersfield in particular. During the period all 70 organizations contributed to the research (Corner & Wills, 2000). Such learning-by-meeting activities, and the focus group meetings in Yorkshire conducted by Anamaria Wills and her colleague, again echo Phase 1 of *accumulating (rather than sharing) tacit knowledge* in Nonaka's five-phase model. This is because through them they *accumulated* plenty of context-specific *tacit knowledge* on how

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<sup>81</sup> Interviewed on October 28<sup>th</sup> 2003, also see Appendix4, 3(1)

employers (in both small and big companies) in the creative sector in Huddersfield saw the training programme for those who wanted to go into creative businesses (Figure 6-9).

*Findings from the series of activities of accumulating tacit knowledge*

Through the findings from their series of activities (such as the IEI research, learning-by-meeting activities, and the focus group meetings in Yorkshire), Anamaria Wills became convinced of the problems regarding the existing training programmes for the unemployed in the creative sector in Huddersfield. Wills commented:

*One of the big issues in the country [which came out of the series of conducted research and meetings] is that people use arts and talk about the arts as a tool of regeneration. In some cases, what that means is that the arts organization goes into disadvantaged communities, shows them how to make a video, do a drama workshop and make a CD or something. Everybody who is working (no matter how miserable they are when they start), at the end, make something, [which makes them] feel really good. The arts have a fantastic effect. It makes people say I can do this. The arts company, however, goes away, wondering what's left? The feeling's really great. But what they do with confidence and energy is nothing.<sup>82</sup>*

This statement was supported by Richard Bealing, the Assistant Head of the Cultural Services in KMC, who commented:

*What normally happens is that you get some money and you put people through the training programmes. ...That's about providing people with enough confidence to make job applications in the first place. What normally happens is people go and do the training and come out the other side of the training project. Nothing else happens to them on the road*

In other words, they recognized that:

- There was a mismatch between the existing training programmes and employers' needs for the employees' skill in the creative (cultural) sector.
- There was a difficulty for people without high qualifications (such as disadvantaged

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<sup>82</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix 4, 3 (1). (Interviewed on October 31<sup>st</sup> 2003).

people, black and Asian people especially) to get into the creative sector.<sup>83</sup>

- Employers in the creative sector in Huddersfield were open to placements and work experience for unemployed people (as noted by Corner & Wills, 2000).

### ***Phase 2: Creating concepts: The externalization mode***

Based on the findings from the series of activities, Anamaria Wills created a concept for a new training programme for the unemployed, called the 'showcase programme'.

*The thing which we came up with from the findings [of the IEI research and the two focus group interviews] was the programme called the 'showcase', which was about working with young people from disadvantaged backgrounds who did not have a high level of qualifications. ...The showcase was not an art project. ...The showcase was absolutely about the bridge into employment. I think it made a difference.*<sup>84</sup>

The concept creation of 'showcase' illustrates Phase 2 of *creating concepts* in Nonaka's five-phase model (see Figure 6-9). This is because it made *explicit* Anamaria's *tacit* belief that an alternative approach to the training programmes for the unemployed was needed, which should overcome the problems of the existing training programmes in CTI identified in her research and learning-by-meeting activities. In order to deliver the showcase programme, *Creative Industries Development Agency* (CIDA), a new company, was established, and it was 'justified' with reference to the umbrella concept of 'creativity' by CTI and the European Commission (Phase 3).

### ***Phase 4: Building an archetype: The combination mode***

The programme was fundamentally designed to firmly connect employment with the training programme by *showing* young people from disadvantaged backgrounds without a high level of qualification who wanted to go into the creative sector the real environment of employment. That was an opportunity for them to go in as a 6 month paid *apprentice* or *trainee*. CIDA would find companies in the creative sector which

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<sup>83</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix 4, 3(2). In order to announce the research findings, in April 2000 Anamaria Wills also ran a conference entitled 'Finding Einstein' which was the first time that technology and art people met together.

could take on trainees. At the same time, in agreement with the company, CIDA arranged the appropriate training or skills courses that trainees should develop in the specific context of the company, which the cultural voluntary organizations were able to provide. The showcase programme was funded SRB 5. In an interview with the author, Tess Butler explained:

*The showcase programme was funded by the SRB 5, which is the same area as the SRB 1, including the town centre. A lot of stuff started through CTI and cultural type of programmes has been continued. Because of the change of government, SRB 5 does not focus on business support, but is very much about addressing social exclusion. Through SRB 5, programmes have been developed which intend to take people who may be on the street and unemployed into work or industries related to music technology, digital technology or anything performing. That is the showcase programme.<sup>85</sup>*

The showcase programme also had the intention of *combining* (integrating) the existing training providers into the programme. In relation to this, in an interview with the author, Brain Cross commented:

*We developed another course called the showcase programme, which was funded to introduce people, and young people in particular, to the creative industries. It is still at a stage of the evolution of some of the ideas. We worked with Proper Job to deliver the showcase programme. We were the partners of CIDA.<sup>86</sup>*

#### *Failure of partnerships*

This partnership was, however, not successful. Elaborating on this, Anamaria Wills commented:

*When [we] set up the showcase programme, ....we had partners, one of which was Proper Job, one of which was BSS and Artimedia. ...That was the next project [of CTI] because out of the work of CTI developing the creative sector in Huddersfield, the next agenda was how to make a job available to the people who don't fit the normal profile. ...They were very unhappy partnerships. Nobody liked each other or trusted each other. They are all CTI companies. I was the new comer, I was the outsider and I am a woman and there was lots of suspicion. We had a big row. They did not want CIDA to run it.*

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<sup>85</sup> Interviewed on October 29<sup>th</sup> 2003

<sup>86</sup> Interviewed on October 29<sup>th</sup> 2003

*Everybody had equal say, so we did begin like that and three months later BSS and Proper Job both faded out because they did not want to be concerned with running it.*<sup>87</sup>

Wills' account was echoed by Sean Leonard who commented:

*BSS had a difficult relationship with CIDA [on delivering the showcase programme]. We had a big argument or big row between CIDA and BSS. ...There is still a degree of real tension now.*<sup>88</sup>

There are some implications of the failure of the partnerships (combination) among the cultural training providing organizations. Firstly, without sharing tacit knowledge of common perspectives and trust, it is quite difficult to build partnerships (the combination mode of knowledge conversion). Secondly, compared with a business organization, it is more difficult to combine voluntary-based cross-organizational activities into a common purpose in the urban regeneration context. This might be because each voluntary organization tends to think that partnerships do not generate profit or place a burden on them.<sup>89</sup>

#### *The design of the showcase programme as Phase 4*

The design of the showcase programme illustrates Phase 4 of *building an archetype* (the *combination* mode of knowledge conversion) in Nonaka's five-phase model (see Figure 6-9). This is because it *combined* the new concept of 'showcase' (which included employers' perspectives) with the idea of the existing cultural training programmes for the unemployed. In other words, the showcase programme was designed as an urban regeneration training programme that *combined* the existing training programme with context-specific employment experience in the creative sector in the form of an apprenticeship.

#### ***Phase 5: Cross-levelling knowledge***

The showcase programme became one of the main urban regeneration projects

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<sup>87</sup> Interviewed on October 30<sup>th</sup> 2003

<sup>88</sup> Interviewed on October 31<sup>st</sup> 2003

<sup>89</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix 4, 3(3)

associated with the Cultural Services Department in KMC. It still continues as a project which the Cultural Services Department in KMC thinks it has room to expand further.<sup>90</sup>

Tess Butler commented:

*CIDA is still running and working the showcase programme with us, that is, SRB 5 and Objective 2, European Funding as well. ...CIDA is still going strong and getting better and better reputations in the town, Yorkshire Forward and so on. This is still part of SRB 5 programmes. It works. How long it continues to work is a different issue and I think there is still room for growth within the town.*<sup>91</sup>

The reputation of CIDA has increased and as a result of this many councils in the UK (including those of Belfast and Hastings) and even abroad (such as Bogotá in Colombia) also have come to Huddersfield to investigate what CIDA is doing. Bogotá, in fact, intends to establish a CIDA type organization in Colombia with the help of CIDA in Huddersfield. These facts illustrate the presence of Phase 5 of *cross-levelling of knowledge* in Nonaka's five-phase model. The second knowledge spiral of CTI (i.e. the development of the showcase programme) is presented in figure 6-9. As shown, the spiral passes through the five phases of knowledge creation to Phase 5 of cross-levelling knowledge. The figure clearly illustrates how the second knowledge spiral of CTI has occurred.

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<sup>90</sup> Interviewed on October 31<sup>st</sup> 2003

<sup>91</sup> Interviewed on October 29<sup>th</sup> 2003

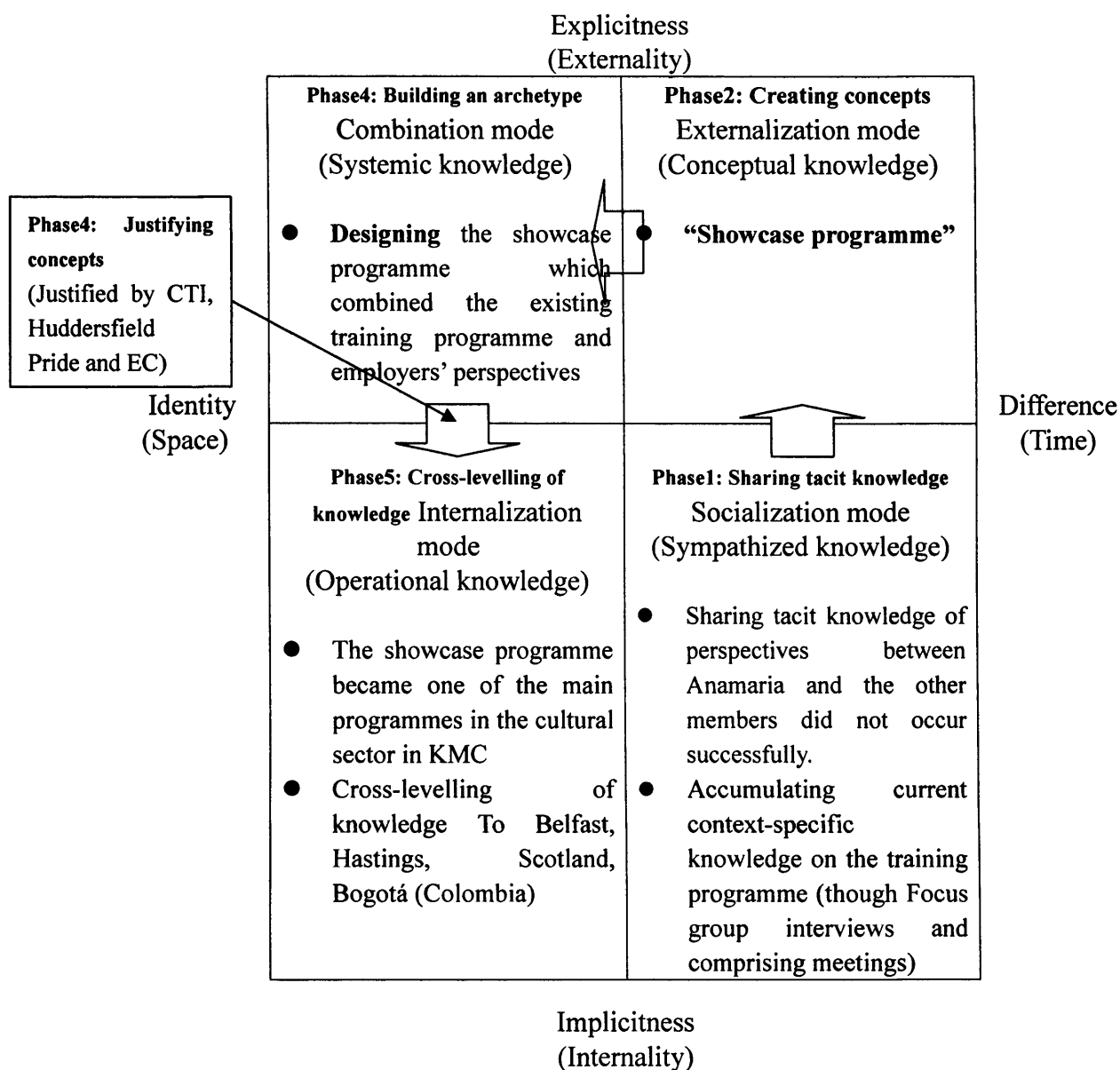


Figure6-9: The second knowledge spiral of CTI within Nonaka's five-phase model framework: The development of the showcase programme (Source: Author)

### ***Five enabling conditions in the second knowledge spiral of CTI***

In the second knowledge spiral of CTI, the five enabling conditions can also be observed. Firstly, CIDA was given full *autonomy* from CTI in conducting a series of research studies. Secondly, *requisite variety* was enhanced by Wills' attendance. Commenting on this in an interview with the author she explained:

*When I got here, I discovered.... it [Huddersfield] was very white and very male. CTI had a couple of projects that were supposed to work with the disadvantaged and young*



*people implemented by Proper Job and Beaumont Street Studio. This did not seem enough to me.*<sup>92</sup>

The above quotation clearly suggests that the participation of Anamaria Wills greatly enhanced *requisite variety*. Requisite variety was also enhanced by Anamaria Wills and her colleague approaching various organizations (a wide range of private organizations in the creative sector in particular). Thirdly, there was little *redundancy of information* between CIDA and the other members of CTI in that the other members of CTI did not join the research on the creative sector, which might have made it difficult to share perspectives and collaborate between Anamaria Wills and the other existing training programme suppliers. Fourthly, *fluctuation* and *creative chaos* were introduced because Anamaria Wills desperately needed a job in Yorkshire for her family, which motivated her to join CTI. Finally, the concept of the ‘Creative Town (City)’ played the role of *organizational intention* that served to direct the activities of CIDA.

### **6.3.7 Analysing the showcase programme in terms of the integrated framework of the TEAM linguistic structure and Nonaka’s SECI model**

Section 6.3.6 illustrated the second knowledge spiral of CTI (CIDA), focusing on the showcase programme, one of CIDA’s delivering programmes. This sub-section analyzed the showcase programme using the integrated framework of the TEAM linguistic structure and Nonaka’s SECI model to demonstrate the possibility of the framework being utilized in substantive (rather than procedural) issues in the urban regeneration context.

The showcase programme, as explained earlier, provides a trainee with an opportunity of 6 months work placement in the creative business sector. Figure 6-10 shows several types of knowledge needed in the creative business, which the trainee can acquire through the programme.

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<sup>92</sup> Interviewed on October 30<sup>th</sup> 2003, also see Appendix4, 4(4)

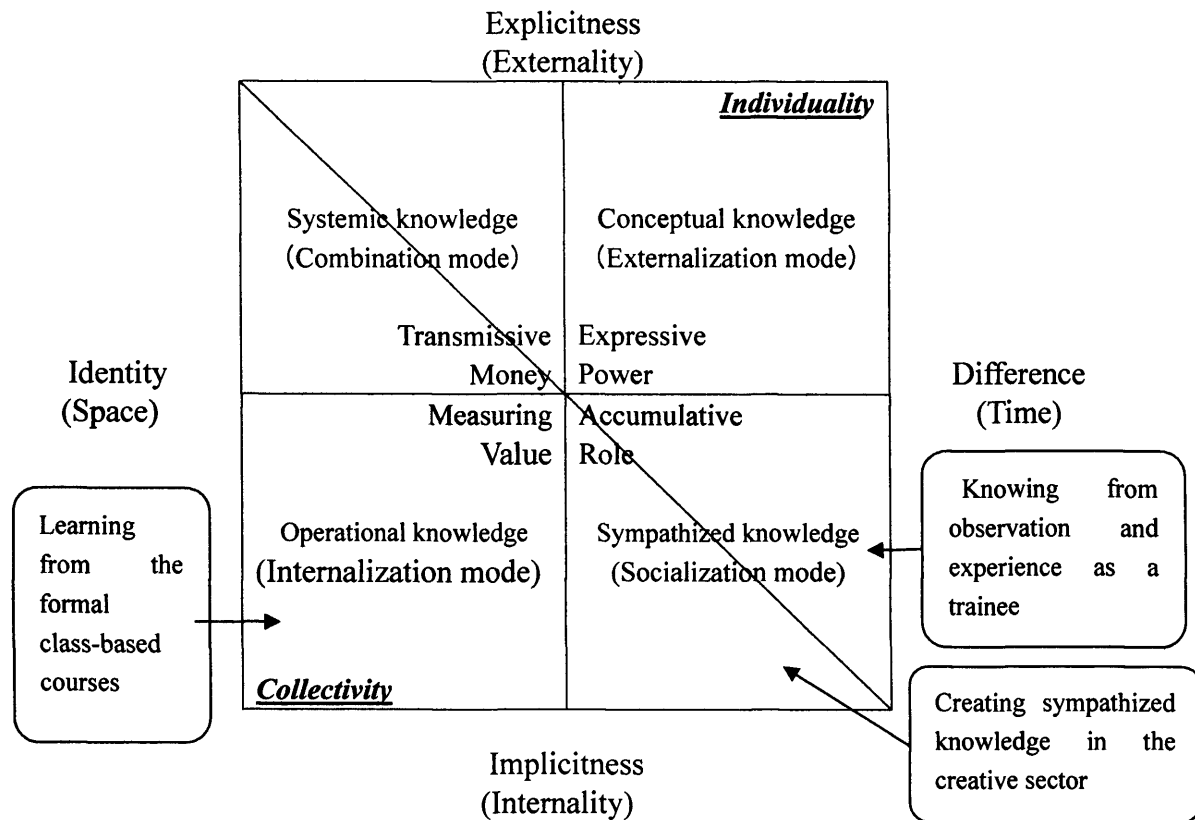


Figure6-10: Knowledge accumulated through the showcase programme in Nonaka's framework (Source: Author)

Firstly, the trainee can obtain context-specific (tacit) knowledge (or embodied knowledge) in the creative businesses through *observing* the activities of employers and other employees or *experiencing* some context specific (junior level) jobs in a company. This type of knowledge falls into the quadrant of *sympathized knowledge* (or the socialization mode of knowledge conversion) but in the *individual* dimension. This is so because this knowledge is characterized by an *implicit* form, *differentiating* it from others (see Figure 6-10).

Secondly, the trainee can obtain *sympathized knowledge* (or encultured knowledge) through *sharing* feelings and common views or creating trust with employers. This type of knowledge falls into the collective dimension of the quadrant of sympathized knowledge (or the socialization mode of knowledge conversion) (see Figure 6-10). This is so because this knowledge is characterized by an *implicit* form, *differentiating* it from

others, but in the *collective* dimension (see Figure 6-10). For example, by sharing feelings or trust with an employer (acquiring sympathized knowledge through the socialization mode of knowledge conversion), a trainee might get a full time job there, or alternatively might gain access to useful information about a job which is difficult to get outside and can only be gained inside the sector. Explaining this, in an interview with the author, Anamaria Wills commented:

*That [access to useful information for a job] is the single most important thing you can do because most of the jobs in this sector still go to people you know. They depend on who you know. When you actually meet other people you are beginning to access some of the networks. That is critical for employment. ...You know where the job is, who is the people who are offering the job, how to go to the right pubs, right bar or whatever it is. These kinds of knowledge don't get advertised.<sup>93</sup>*

Thirdly, the trainee can obtain *operational knowledge* (or embedded knowledge) by attending class-based courses arranged by CIDA and provided by voluntary organizations outside the company during the work placement. The knowledge obtained through such class-based courses falls into the quadrant of *operational knowledge* (the internalization mode of knowledge conversion). This is so because this type of knowledge is by its nature characterized as *identified* with others and is *internalized* in the trainee.

In sum, through the showcase programme as an integrated programme of training and skills development, three types of knowledge are accumulated and internalized within the integrated framework of the TEAM linguistic structure and Nonaka's SECI model. This suggests that seen from Nonaka's theory, the showcase programme has a strong potential to acquire implicit (tacit) knowledge, which provides a foundation of business skills for the young unemployed people who want to obtain a job.

#### **6.4 Generic conclusions**

This chapter has attempted to answer the question of whether Nonaka's theory is

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<sup>93</sup> Interviewed on October 30<sup>th</sup>, 2003

applicable to the (empirical) context of UK urban regeneration, using CTI in Huddersfield as a case study. In other words, the empirical part of Hypothesis 2 has been examined.

The story of making the CTI proposal (and the previous and subsequent activities associated with CTI) has supported Nonaka's theoretical frameworks in many ways. Firstly and overall, the case of CTI in Huddersfield to a great extent illustrated the relevance of the integrated framework of (the TEAM linguistic framework and) Nonaka's five-phase model, which is related to the four modes of knowledge conversion. As evidence of this, the preparation of the CTI proposal required knowledge creation to move along the five phases at least three times in a form that involved knowledge creation processes as a linear, rather than a spiral and iterative process. It should also be noted that CTI in Huddersfield involved a continuously *self-transcending* and *problem-discovering* process in an active manner to enhance goals, rather than to passively meet given goals and adjust to the environment (as Systems Theories and Rational Theories of Planning assume) or to achieve consensus among participants (as Communicative Planning assumes). This is seen to give a certain vitality to CTI in continuously creating new knowledge.

Secondly, the case of CTI in Huddersfield has supported Nonaka's definition of knowledge as a '*justified true belief*' in which a personal 'belief' and the 'justification' of knowledge is more emphasized than 'truthfulness'. The research found that the first knowledge spiral of cultural industries in KMC started with Phil Wood's personal (individual) *belief* that culture is a strong tool for job creation, while the second knowledge spiral of CTI (the showcase programme) started with Anamaria Wills' *belief* that the existing way of providing training programmes for the unemployed in CTI was not 'real'. Tacit knowledge of those beliefs was eventually approved (*justified* against, for example, the umbrella concept of the 'Creative City') by the Council, Huddersfield Pride and the European Commission.

Thirdly, the case study research has also supported Nonaka's assumption of the existence of *dualistic epistemology* (of tacit and explicit knowledge) and *dualistic ontology* (of individuality and collectivity) in CTI in Huddersfield. Regarding epistemology, while the importance of the (tacit) beliefs or perspectives of actors who played a crucial role has supported the importance of tacit knowledge, the critical role of *explicit* proposal writing in general, and project creation in particular, has supported the significance of explicit knowledge in knowledge creation. Regarding ontology, the individual beliefs held by (and explicitly expressed by) Wood and Wills have supported Nonaka's assertion of individuals as knowledge *creating* agents, while the fact that these beliefs were shared with (amplified and internalized by) others in the cultural sector in Huddersfield has supported his assertion of the collective as the knowledge *amplifying* entity.

Fourthly, regarding Phase 1 of *sharing tacit knowledge* (or the *socialization* mode of knowledge conversion), the case study not only reflected characteristics of this phase (or mode), but also showed the difficulties encountered in the realization of the phase. Wood's individual *tacit knowledge* (i.e. his belief that culture could be an important tool for economic urban regeneration in Huddersfield) was successfully *shared* (and internalized) through several informal meetings with people associated with the cultural sector in Huddersfield (including members of CIK, the Forum of Cultural Industries and CTI). This clearly suggests the existence of the phase in the CTI case. However, the failure to share tacit knowledge was also observed in the CTI case study. An attempt by Wills, a newcomer, to share her perspective on training programmes for unemployed people in the creative sector with other voluntary organization members in CTI resulted in conflict and tension. This highlights the difficulties of successful realization of the phase of sharing tacit knowledge (or socialization mode) and the importance of building close relationships based on shared experiences. The case also highlighted how important it is for main actors (individuals) to *accumulate*, rather than *share*, tacit knowledge in the pursuit of creative innovation; something which Nonaka's theory does not highlight. This point reflected Nonaka's false dichotomy of the *cognitive* dimension

of tacit knowledge lying at the *collective* level and the *technical* dimension lying at the *individual* level (see section 2.3 & 2.5.1).

In addition, the case study has shown the importance of Phase 2 of *creating (strong) concepts* (the externalization mode of knowledge) and the potential limitations of this notion in the urban regeneration context. That is, Nonaka's concept of the *externalization* mode of knowledge conversion seems to be narrow in the urban regeneration context because in the first knowledge spiral of cultural industries and the first knowledge spiral of CTI, the concepts were *taken* from intellectuals, rather than *externalized* from inside by members of CTI.

Also, regarding Phase 4, building an archetype (or the *combination* mode of knowledge conversion), the case study research in Huddersfield showed that 'an archetype' usually takes the form of *explicit* proposal writing for urban strategy planning or individual project design, which *combines* newly created and existing knowledge. The case highlighted the fact that in order for the combination mode of knowledge conversion to occur successfully, individual projects have to be combined in a synthesized and integrated manner.

Moreover, the CTI case study has illustrated the five knowledge-enabling conditions in the (four) knowledge spirals. Many of the five conditions were found in the knowledge spirals in Huddersfield, while others (such as *information redundancy* and *requisite variety*) were restricted. The case study analysis suggested that by intentionally introducing information redundancy and requisite variety into the strategy planning process for urban regeneration, the quality of knowledge creation could be enhanced. The examination also suggested that the concepts of requisite variety and information redundancy are closely related to public-private partnerships. In this sense, in order to enhance the quality of knowledge creation in the urban regeneration context, public-private partnerships should be taken seriously.

Finally, section 6.3.7 analyzed the showcase programme using the integrated framework of the TEAM linguistic structure and Nonaka's SECI model, which demonstrated the possibility for the framework to be utilized in substantive (rather than procedural) issues in the urban regeneration context.

By taking all factors into consideration, although some limitations of Nonaka's theory have been found, it can be concluded that there is a possibility that Nonaka's theory may be applicable even to the (empirical) context of urban regeneration.

## CHAPTER 7: CONCLUSIONS

### 7.1 Conclusions

#### 7.1.1 Overall conclusion

Throughout the thesis, two hypotheses posited in Chapter 1 have been examined. Regarding Hypothesis 1, which postulates that *Nonaka's theory of organizational knowledge creation can be applied to the KM context in the UK in particular, both in the sense of theory and practice*, the research findings support the thesis that Nonaka's theory can be *theoretically* applied to some degree to the KM context in the UK. This conclusion is reinforced by the identification in the thesis that the central notions argued in KM, and the five types of knowledge identified and classified by European (mainly UK) researchers in particular, essentially fit into Nonaka's framework of the four modes of knowledge conversion (reinforced by the TEAM linguistic structure). In this sense, the cultural tendencies of Japan reflected in Nonaka's theory do not seem to be prejudicial to its applicability elsewhere. However, the applicability of Nonaka's five conditions and his five-phase model for organizational knowledge creation in KM, could not be sufficiently examined to make a case in theory either way, meaning that further research is needed in this area.

In terms of practice, the case study analysis undertaken of Universal Consultancy appears to support the view that Nonaka's theory can be trans-national in practical terms. This is because the research study confirmed the presence of three out of Nonaka's four modes of knowledge conversion and four out of five of the conditions for organizational knowledge creation. Notwithstanding this, given the limitation of the hypothesis testing to one set of circumstances (those associated with Universal Consultancy), more empirical research in the UK is needed to re-confirm (or otherwise) that these conclusions do indeed apply more generically to the UK.

Regarding Hypothesis 2, which posits that *Nonaka's theory can be applied to organisations engaged in policy-making, planning and management for urban regeneration in the UK in both theory and practice*, the thesis findings demonstrate that Nonaka's theory can be *theoretically* applicable to the urban regeneration context, if one



adopts urban planning theory as a proxy representation of urban regeneration theory. They also show that Nonaka's theory is more applicable in dualistic epistemological and ontological terms than either the Systems and Rational Theories of Planning and Communicative Planning. This is because it was found that these two sets of theories are *juxtaposed* in Nonaka's theoretical framework.

In terms of practice, the UK case study of the Huddersfield Creative Town Initiative illustrated the applicability of Nonaka's theory to urban regeneration by identifying the presence of knowledge spirals in the policy making processes for urban regeneration, along with elements of Nonaka's five-phase model (based on the four modes of knowledge conversion). In addition, all of Nonaka's five conditions for organizational knowledge creation were evident. However, a number of limitations to Nonaka's theory were also identified, including the notions of the socialization and externalization modes of knowledge. There, however, can be overcome by using an approach based on the TEAM linguistic framework. As in the case of the first hypothesis, it is evident that further research is needed to verify (or otherwise) the generic value of the research findings, particularly in light of the fact that the UK empirical findings cited were confined to one urban regeneration case study.

The following sections elaborate on the above conclusions to the thesis

### **7.1.2 Nonaka's theory as a theoretical KM framework**

In Chapter 2 the four linguistic meaning functions in the TEAM linguistic structure were found in Nonaka's SECI model. That is, the linguistic functions of (1) *transmitting*, (2) *expressing*, (3) *accumulating* and (4) *measuring* of meaning (and their related social languages of (1) *Money*, (2) *Power*, (3) *Role* and (4) *Value*) corresponded to the four knowledge conversion modes of (1) *combination*, (2) *externalization*, (3) *socialization* and (4) *internalization* in Nonaka's SECI model. Using the integrated framework of the TEAM linguistic structure and Nonaka's SECI model, Chapters 2 & 3 addressed the question of whether Nonaka's theory of organizational knowledge creation is trans-national and applicable to KM in the UK in particular. Figures 7-1, 7-2 and 7-3

diagrammatically summarise the findings of these chapters.

Chapter 2 identifies how the major concepts in *organization studies* are seen to fit neatly into Nonaka's theoretical framework (see Figure 7-1). The concepts of social capital and physical proximity correspond to the socialization mode, combination activity and IT-based KM are closely related to the combination mode, and absorptive capacity and organizational learning correspond to the internalization mode.

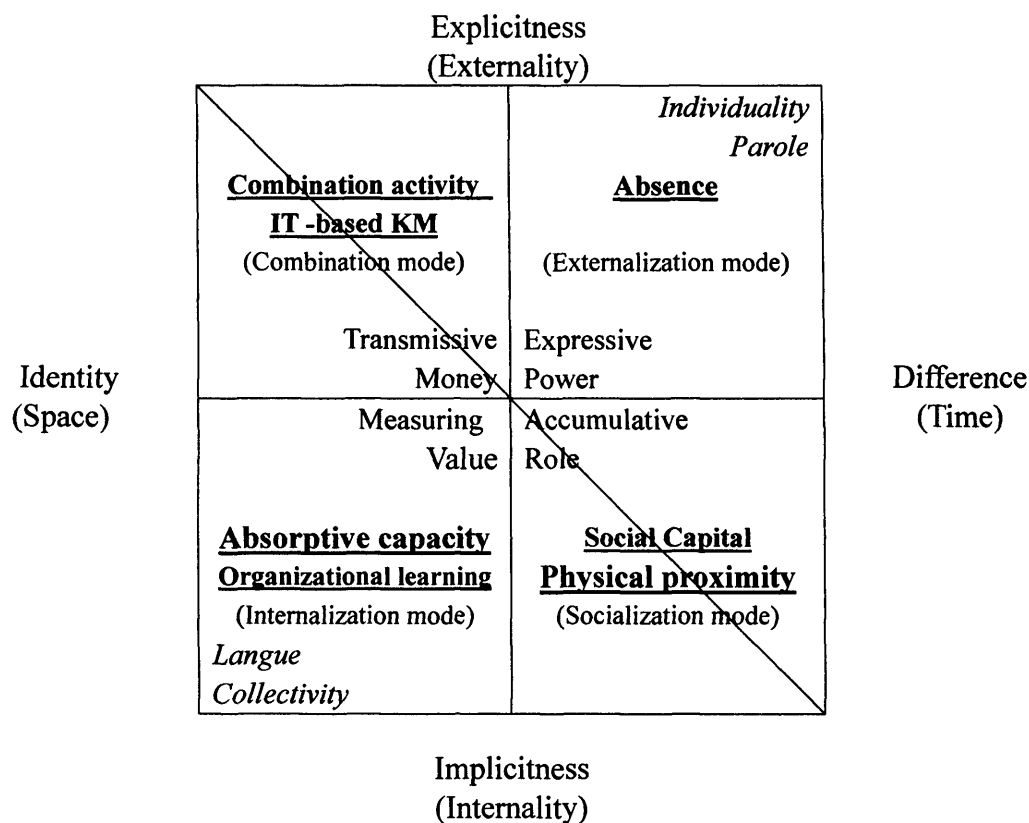


Figure7-1: The relationship between Nonaka's SECI model and arguments related to Nonaka's theory in organization studies (Source: Author)

Chapter 3 seeks to demonstrate that the major concepts in KM literature in the West fit neatly into Nonaka's theoretical framework (see Figure 7-2). KM that focuses on managerial issues is closely related to the socialization and internalization modes, the IT/IS driven approach to KM corresponds to the combination mode, organizational leaning, intellectual capital and strategic implication are associated with the

internalization mode, and the IT driven integrative approach to KM corresponds to the combination and internalization modes.

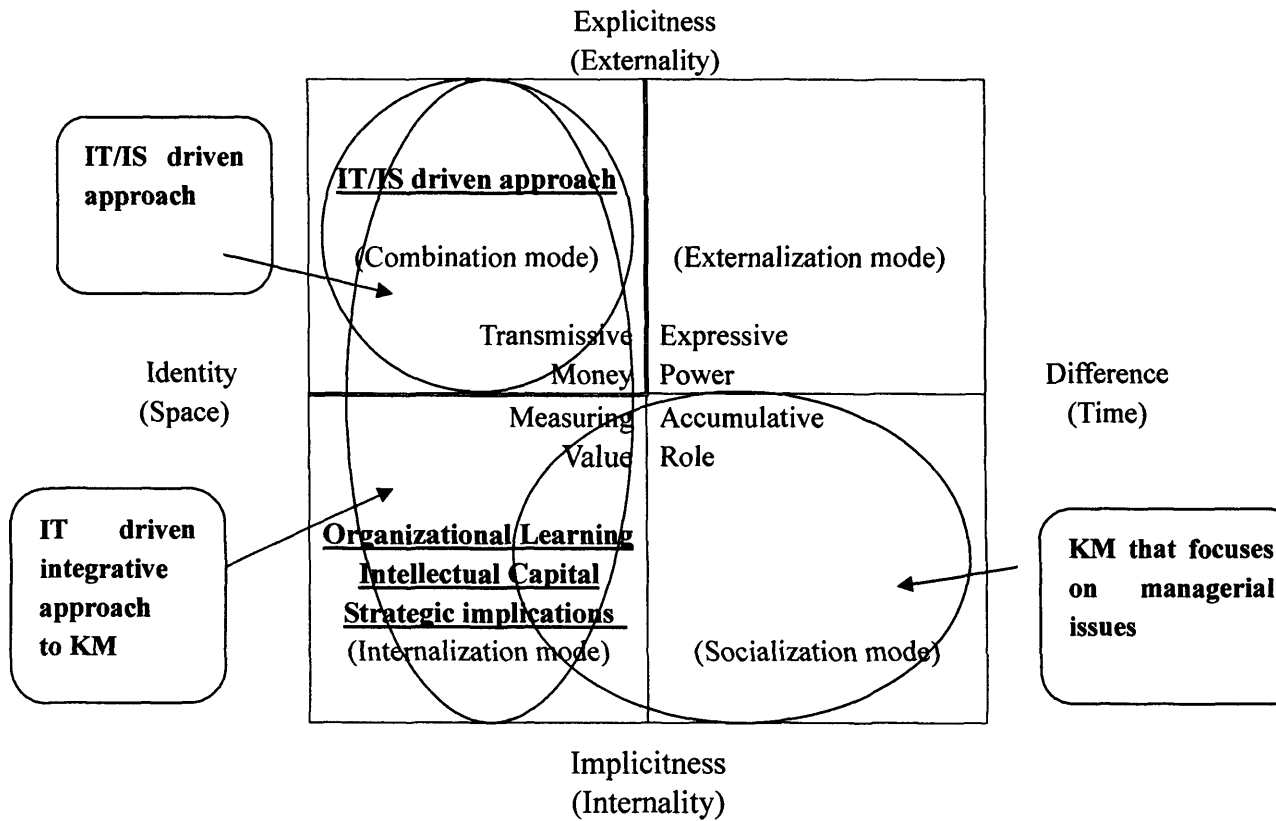


Figure7-2: The relationship between KM discourses in the West and Nonaka's SECI model (Source: Author)

The five types of knowledge developed in KM studies are seen to fit into Nonaka's theoretical framework (see Figure7-3). Embodied knowledge corresponds to the individual dimension of sympathized knowledge, encultured knowledge is closely related to the collective dimension of sympathized knowledge, embrained knowledge corresponds to the collective dimension of systemic knowledge, encoded knowledge is related to the collective dimension of systemic knowledge, and embedded knowledge is associated to operational knowledge.

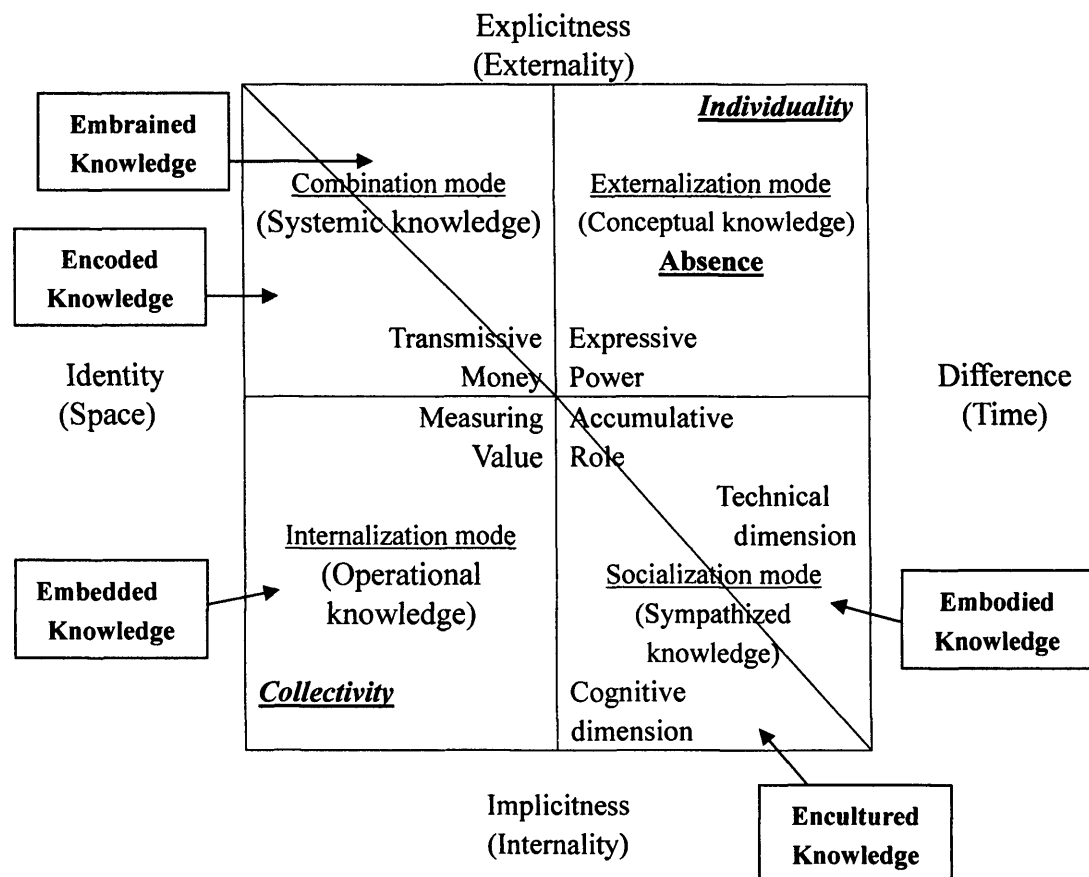


Figure7-3: The relationship between typologies of knowledge in KM in the West and Nonaka's SECI model (Source: Author)

Drawn from the above figures, one may conclude that no literature in organization studies in the West (including the UK) in KM covers all aspects of Nonaka's four modes of knowledge conversion. This is also the case with regard to his associated four knowledge types, which correspond to the four functions in the TEAM linguistic structure.

Figure 7-3 suggests that although the five types of knowledge identified in KM literature in the West correspond to the types of knowledge identified in Nonaka's theory, the Western typology retains *static*. In other words, no KM literature in the West attempts to integrate the various types of knowledge into a *dynamically sequential process* framework of organizational knowledge creation, as Nonaka's work does. By

providing the five-phase model of organizational knowledge creation, Nonaka includes *dynamism* in the form of the *knowledge spiral*.

Regarding the *socialization mode* of knowledge conversion (or *sympathized knowledge*), Nonaka assumes that this *mode* is characterized by Japanese organizations. However, taking into consideration that the concepts of *social capital* and *physical proximity* (see the quadrant of difference/implicitness in Figure 7-1) and *encultured knowledge* (the same quadrant of difference/implicitness in Figure 7-3) have attracted attention among academics in the UK, it can be concluded that the importance of this mode has been widely recognized in the academic field of both Europe and Japan. The Universal Consultancy case study, where the socialization mode of knowledge conversion was emphasised, supports the existence of the socialization mode in the UK context.

This thesis also makes it clear that the *combination mode* of knowledge conversion (or *systemic knowledge*) has been well accepted in KM in the UK in particular, especially in relation to the introduction of IT/IS, where the concept of IT-driven KM have been constructed (see the quadrant of identity/explicitness in Figures 7-1 and 7-2).

The *internalization mode* of knowledge conversion (or *operational knowledge*) has been found to correspond to the concepts of *absorptive capacity* and *organizational learning* in the context of organizational studies (see the quadrant of identity/implicitness in Figures 7-1 & 7-2) and of *embedded knowledge* (see the same quadrant of Figure 7-3). This suggests that the importance of this mode has been recognized in both the contexts of organization studies and KM.

The *externalization mode* of knowledge conversion (or *conceptual knowledge*) has been given little consideration in the literature of KM in the UK (see the quadrant of difference/explicitness in Figures 7-1, 7-2 & 7-3). As argued in Chapter 2, the dominant notion of rationality; namely, the Western (Cartesian-like) rationalist epistemology may considerably account for the absence of this mode, as it is highly related to *non-logical*

(non-rational) dimensions, such as imagination, expression and use of metaphor.

With regard to Nonaka's five enabling conditions for organizational knowledge creation, four out of five of these conditions have been found to exist in case study research, as in the case of Universal Consultancy (see section 3.4.3).

All of the above considerations lead us to conclude that Nonaka's theory in general, and his SECI model in particular (reinforced by the TEAM linguistic structure), not only may be trans-national and applicable to the KM context (in the UK), but also may provide a comprehensive and coherent framework for representing and analyzing knowledge creation and activities in a business organization that enables various existing theoretical arguments to adjust and mutually relate to each other.

### **7.1.3 Nonaka's theory in the context of urban planning theory**

To investigate the applicability of Nonaka's theory to the theoretical context of urban regeneration, Chapters 4 & 5 examined the relationships between Nonaka's theory and the field of urban regeneration, using two sets of procedural theories of urban planning; namely, *Systems Theories and Rational Theories of Planning* (see Chapter 4), and *Communicative Planning* (see Chapter 5). Table 7-1 shows a summary of the findings of Chapters 4 & 5, from which several conclusions were drawn.

Table 7-1: Nonaka's theory juxtaposed against two urban planning theories (Source: Author)

Name of theory Element		Systems & Rational Theory of Planning	Communicative Planning	Nonaka's theory
Epistemology		Explicit knowledge (Scientific or technical knowledge)	Tacit knowledge (Local knowledge)	Tacit & explicit knowledge
Ontology		The individual	The collective (or intersubjective)	Both the individual & collective
(Saussure's dualism)		Parole	Langue	Parole & langue
Organizational structure		Corporatist-model (Bureaucracy) (Exclusionary nature)	Stakeholder-commun- -ity model (Inclusionary nature)	Cross functional organization (or The microcommunity of knowledge) (Both inclusionary and exclusionary)
Main Aim		To achieve a given goal in the most effective way	To build consensus	To create new knowledge
TEAM linguistic framework (social languages)	Money (Technical calculation)	Functional rationality	Communicative rationality	The combination mode
	Power (Decision)	Little concern (But town planners)	Equal power (empowerment)	The externalization mode
	Role (Conventional repetition)	Weak	Concerned in practical context, but weak (Social capital)	The socialization mode
	Value (Symbolic meaning)	Weak (Value-free approach)	Weak	The internalization mode

The first of these conclusions is that from the perspective of the TEAM linguistic framework, both Systems Theories and Rational Theories of Planning and Communicative Planning are fundamentally narrow in their theoretical suppositions. This is because Systems Theories and Rational Theories of Planning (and *functional rationality* as its main concept in particular) and Communicative Planning (with *communicative rationality* as its main concept) focus mainly on *Money* in the four social languages in the framework (see the bottom of Table 7-1). In other words, the pursuit of *rationality* in these theories tends to ignore other aspects of social languages (or linguistic meaning functions), which human beings inevitably rely on and value.

Nonaka's SECI model, based on the four modes of knowledge conversion, is consistent with the TEAM linguistic framework (again see Table 7-1).

A second important finding lies in the *epistemology* and *ontology* of (urban) planning theories (see the two top boxes of Table 7-1). Regarding epistemology, Systems Theories and Rational Theories of Planning deal only with the *explicit* dimension of knowledge, dominated by the rationalist view. Communicative Planning literature, on the other hand, tends to focus only on *tacit*-related (local) knowledge, such as citizens' feelings, beliefs and perceptions. In this sense, the two sets of theories are *juxtaposed* in epistemology (but both have a place) within Nonaka's dualism of tacit and explicit knowledge.

Regarding ontology, Systems and Rational Theories of Planning are concerned with *individuality* (Parole) as a 'knowing entity' and view an organization as an aggregate of individuals who act in a rational way. On the other hand, Communicative Planning highlights the (citizens') *collective* dimension (Langue) in knowledge activities, (without sufficient consideration for the roles and functions of individuals). In this sense, again these two sets of theories of urban planning are *juxtaposed* in ontology (but both are contained) within Nonaka's framework of individual / collective dualism.

### ***Juxtaposed organizational structure in the urban planning context***

Using the four elements of the TEAM linguistic framework, Chapter 5 analyzed the relationship in the organizational structures of Systems Theories and Rational Theories of Planning, Communicative Planning and Nonaka's theory, as summarised in Figure 7-4 (also see Table 7-1).



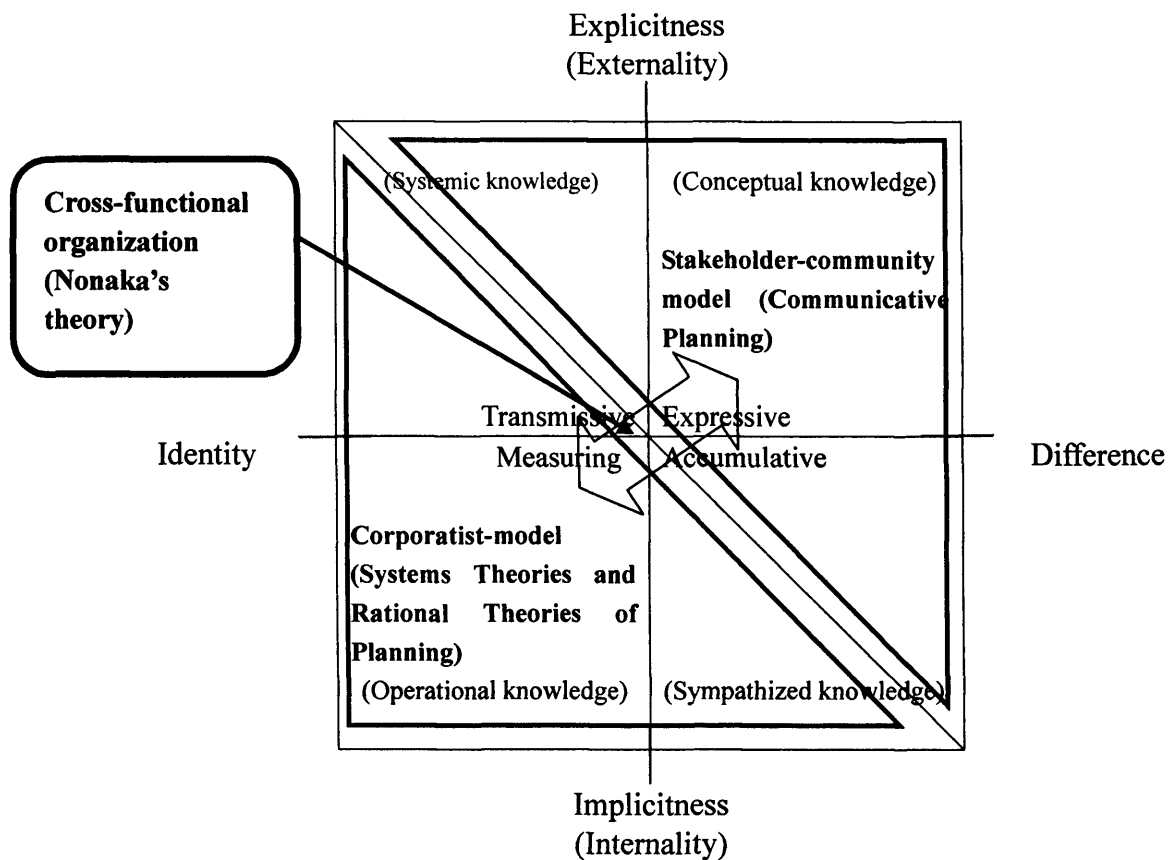


Figure7-4: Nonaka's juxtaposed organizational structure between Systems Theories and Rational Theories of Planning, and Communicative Planning (Source: Author)

The above figure is co-ordinated by the two axes, the vertical axis of *explicitness-implicitness* and the horizontal axis of *difference-identity*. The figure shows that the stakeholder-community model of organizational structure (based on Communicative Planning) (top right of diagram) places emphasis on *difference* and *explicitness* (being characterized by changeable members with *different* opinions, under which *explicitly expressed* opinions tend to play a critical role). On the other hand, a corporatist-model (developed from Systems Theories and Rational Theories of Planning) (bottom left of diagram) tends to place importance on *identity* and *implicitness* (being marked by *exclusively* fixed members with organizationally formalized and therefore *identified* information as part of a bureaucracy, which can be *implicitly* and collectively internalized in the organization).

The figure also shows that Nonaka's model of the *cross-functional organization* (or the

*micro-community of knowledge*) synthesizes the two sets of urban planning theories. This is because the organization model pays attention to the dimensions of *differentiation* and *externalization* (by bringing people with *different* opinions together from *different* backgrounds) while it also includes the dimensions of *identification* and *internalization* (by fixing the members of an organization). Again, these two sets of theories are *juxtaposed* in the organizational structure but contained within Nonaka's *cross-functional organization*, which appears to be an effective structure for managing knowledge in an organization because it strikes a balance between *explicitness-implicitness* and *difference-identity*.

### ***Nonaka's theory as a theoretical foundation for urban planning theories***

The above considerations suggest that Rational Theories and Systems Theories of Planning and Communicative Planning are almost a mirror image of each other, focusing exactly on what its counterpart neglects. In other words, the emergence of Communicative Planning in the 1980s can be seen as an over-reaction, rather than a logical response, to the deficiencies of Systems Theories and Rational Theories of (urban) Planning. This *paradigm shift* (Kuhn, 1962) does not suggest an attempt to enhance the theoretical validity or 'truthness'. Rather, it represents a reactive shift of 'ideology' (a fixed idea) which was a better fit to the *Zeitgeist*. The above findings also suggest that seen from the perspectives of epistemology, ontology and organizational structure, the two sets of theories are *juxtaposed* but combined in Nonaka's theoretical framework in its suppositions. All of the above lead us to conclude that Nonaka's theory is not only more applicable than Systems Theories and Rational Theories of Planning, and Communicative Planning to the theoretical context of urban planning, but it also provides a much broader, comprehensive and coherent framework for representing and analyzing organizational knowledge activities. In other words, Nonaka's theory offers not only *an epistemological and ontological foundation*, but also *a foundation of organizational structure* that synthesizes the dichotomous perspectives or characters of the two sets of urban planning theories.

#### **7.1.4 Nonaka's theory as a practical framework for knowledge activities in the process of strategy formulation in UK urban regeneration**

Chapter 6 demonstrates the applicability of Nonaka's theoretical frameworks to the Creative Town Initiative (CTI) in Huddersfield. The illustration of the processes of making the CTI proposal (and the previous and subsequent activities) supports Nonaka's theoretical frameworks in the UK context of urban regeneration in many ways. This section draws several detailed conclusions from the case study.

##### ***Nonaka's definition of 'knowledge'***

The case of CTI in Huddersfield supports the definition of knowledge defined by Nonaka as a '*justified true belief*' (see Chapter 2) in general and the emphasis on *individual belief* in particular. The first knowledge spiral of cultural industries started with Wood's *individual belief*, while the second knowledge spiral of CTI started with Wills' *belief*. Those beliefs were *justified* against, for example, the Council's vision (KMC) and the aims of European Commission's UPPs.

##### ***Dualistic epistemology and ontology***

The case study research also supports Nonaka's assumption of the existence of *dualistic epistemology* (of tacit and explicit knowledge) and *dualistic ontology* (of individuality and collectivity) in CTI in Huddersfield. Regarding epistemology, while the importance of the (tacit) beliefs or perspectives of actors supports the importance of *tacit knowledge*, the critical role of explicit project creation supports the significance of *explicit knowledge*. Regarding ontology, while the individual beliefs held by the main actors support the individual as knowledge *creating* agents, the collective sharing of these beliefs supports the collective as the knowledge *amplifying* entity.

##### ***Nonaka's five-phase model***

The case study of CTI in Huddersfield also largely supports Nonaka's integrated, synthesized theoretical framework of the five-phase model. Although the same order of precedence was not observed, knowledge spirals were found along with elements of

Nonaka's five-phase model.

### ***Phase 1: sharing tacit knowledge***

The CTI case not only identified the importance of Phase 1, *sharing tacit knowledge*, (such as views, perspectives and trust among the members) in each of the knowledge spirals but only showed the difficulty encountered in the realization of the phase. In addition, the case also suggests how important it is for main actors (individuals) to *accumulate*, rather than *share*, tacit knowledge in the pursuit of creative innovation, which Nonaka did not clearly suggest in his theory. The finding adds to the conceptual development of Nonaka's theory itself, not only in the KM context, but also more specifically in the (UK) urban regeneration context by finding the importance of the *cognitive* dimension of tacit knowledge lying at the *individual* level, that is, the action for individuals to *accumulate* tacit knowledge.

### ***Phase 2: creating concepts***

The case study illustrated the relevance of Phase 2 of Nonaka's theory of *creating concepts* (or the *externalization* mode of knowledge conversion), to which both KM literature and urban planning theories pay scant attention. The findings of Chapter 6, however, suggest that the notion of the *externalization* mode of knowledge conversion seems to be a narrow one in the urban regeneration context and would be better referred to as the *expressive* mode of knowledge activity (conversion), which is in the same quadrant of the externalization mode of knowledge conversion in the TEAM linguistic framework.

### ***Five Conditions for organizational knowledge***

The knowledge creation processes associated with CTI illustrates the presence of the five conditions which Nonaka assumes facilitate organizational knowledge creation. Many of the five conditions have been observed in each knowledge spiral and the first knowledge spiral of CTI in particular. The examination also suggests that the concepts of *requisite variety* and *information redundancy* are closely related to public-private

partnerships. In this sense, in order to enhance the quality of knowledge creation in the urban regeneration context, public-private partnerships should be taken seriously.

### ***Conclusions of Chapter 6***

In conclusion, by taking all factors into consideration, in spite of the need for some theoretical amendments (such as the limitations of the notions of the socialization and externalization modes of knowledge conversion), which can be amended based on the TEAM linguistic framework, the case study research demonstrated a possibility that Nonaka's theory of organizational knowledge creation may be applicable to the urban regeneration context. In other words, this empirical research shows that Nonaka's theory has a possibility to be a practical working model in the UK urban regeneration context. Moreover, through the case study research, Nonaka's theory itself has been conceptually developed and linked to the collaborative partnership approach to urban regeneration with knowledge management.

### **7.2 Contributions**

The contributions of this research to the field of urban regeneration and to the strategy making processes for urban regeneration in particular, the researcher believes, lie in its innovative approach, and that its implications for urban regeneration practice are substantial in many ways. Firstly, because there have been relatively few empirical and theoretical accounts which have the perspectives of *knowledge* and *knowledge creation* as focal points of the strategy making process in urban regeneration, this research has opened up a new research perspective to the field of urban regeneration. It provides the possibility that Nonaka's theory may offer new theoretical perspectives and an alternative approach to urban regeneration processes, which should enhance understanding of the nature of urban regeneration and advance the practice of strategy making for urban regeneration.

Secondly, by having paid close attention to the epistemological and ontological dimensions of decision-making / KM theory, this research has revealed that the

academic research areas examined in this thesis (such as the study of organization studies, KM, the two sets of procedural theories of urban planning) did not rest on solid foundations sufficiently underpinned by firm and rigorous theoretical and empirical analysis. By introducing the (TEAM) linguistic framework into the research framework, this thesis demonstrated that Nonaka's theory, and his SECI model in particular, provides a coherent general framework for representing and analysing knowledge creation and knowledge activities not only in the KM context in the West, but also in the urban planning and urban regeneration contexts. In particular, this research revealed that Nonaka's SECI model provides a perspective which transcends and synthesizes the dichotomies in epistemology and ontology between Systems Theories and Rational Theories of Planning and Communicative Planning, to which Nonaka's theory is regarded as juxtaposed.

Thirdly, by providing empirical accounts which offer a retrospective perspective of knowledge creation in strategy making for urban regeneration, this thesis contributes to developing an alternative new theory of organizational knowledge-creation with guidelines intended for practice in the context of urban regeneration. By becoming aware of the concepts and suggested practical processes of knowledge creation provided by Nonaka, such as the four modes of knowledge conversion (and their related four linguistic meaning functions), the five-phase model and the five conditions for organizational knowledge creation, policy-makers can better realize effective knowledge creation for urban regeneration strategy. The most important finding from this research in this regard has to do with strategy making for urban regeneration in terms of the deep understanding of knowledge activities or knowledge creation. This is (potentially) capable of addressing highly complex and extensive urban problems that today's cities face in a globally competitive society and offers insights into how to enhance the quality of strategy making for urban regeneration.

### **7.3 Research limitations and future research**

It is important to consider the limitations of this research and the future research needed in the field. Firstly, assuming that there are no comprehensive theoretical frameworks for strategy making processes in urban regeneration, this thesis utilized two sets of urban planning theories as the materials of theoretical examination, instead of urban regeneration literature. In order to enhance the validity of this research, the close examination of the theoretical relationship is needed between urban planning theory (and Communicative Planning in particular) and urban regeneration literature (and the collaborative approach to urban regeneration in particular).

Secondly, the case study conducted has several methodological limitations. These mainly arise from the fact that only one site has been chosen. The case study (based mainly on interviews) inevitably depended on chosen key individuals and also asked selected questions. The questions related to events completed years before and therefore respondents' memories remain a variable. These methodological approaches might cause a certain level of bias. The results of this research should be further refined by conducting additional case studies in similar urban regeneration contexts.

Thirdly, the case study site chosen focused on a particular sector of a particular city; namely, the cultural (then creative) sector of Huddersfield, rather than provided a comprehensive coverage of urban regeneration. In order to enhance validity of research perspective, further longitudinal case studies should be conducted in a more complex urban regeneration context that comprises more dimensions of urban regeneration.

Fourthly, Nonaka's SECI model does not suggest criteria on how each of the four modes of knowledge conversion should be evaluated. Moreover, this thesis did not examine the theoretical rationale for the premises of his five conditions for organizational knowledge creation. Without the further establishment of the theoretical rationale, the conclusions about the validity of Nonaka's theory should be limited. Based on such concerns, Nonaka's theory itself should be developed in the urban regeneration context.

Finally, a further area of future research would be to use the integrated framework of the TEAM linguistic structure and Nonaka's theory created in Chapter 2 (Figure 2-11) for the analysis of the 'substantive', rather than 'procedural', issues in urban regeneration practices. This is because it incorporates the disparate and interdisciplinary perspectives of economics, politics, sociology and cultural studies. In addition, individual projects for urban regeneration can also be analyzed in terms of the framework.

In conclusion, although this thesis has some limitations in its approach, and in its empirical research in particular, Nonaka's theory of organizational knowledge creation, and the integrated framework of the TEAM linguistic structure and Nonaka's SECI model in particular, can provide a valuable foundation for future research and contribute to making progress for the study of urban regeneration, with a unique perspective on 'organizational knowledge creation' supported by a linguistic theory.



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The Harvard system of referencing has been used

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## **Chapter 7**

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## **Appendices**

## Appendix 1: List of Interviewees in the Creative Town Initiative in Huddersfield

Name	Organization/position	Main role	Contact
<b>Phil Wood</b>	Director of CTI	The key player and organiser of CTI	<a href="mailto:philwood@comedia.org.uk">philwood@comedia.org.uk</a>
<b>Sean Leonard</b>	Economic Development Officer in Kirklees Metropolitan Council (now Director of the Beaumont Street Studios)	A supporter and one of key players of CTI, who then became director of BSS, a crucial organisation in the local cultural (creative) scene	<a href="mailto:seanleonard@beaumontstreet.co.uk">seanleonard@beaumontstreet.co.uk</a>
<b>Anamaria Wills</b>	Director of the Creative Industries Development Agency (CIDA)	Joined CTI during the second year with a role to widen access and develop new programmes. She set up CIDA, a support agency for creative industries across the region	<a href="mailto:anamaria@cida.org">anamaria@cida.org</a>
<b>Toby Hyam</b>	Director of the media centre	Director of the media centre, a crucial organisation providing advanced IT environments (infrastructure) to local cultural (creative) businesses. He also became a main actor after the CTI movement	<a href="mailto:toby@the-media-centre.co.uk">toby@the-media-centre.co.uk</a>
<b>Tess Butler</b>	Director of Huddersfield Pride	Director of the parent organisation for CTI	<a href="mailto:teresa.butler@kirkleesmc.gov.uk">teresa.butler@kirkleesmc.gov.uk</a>
<b>Richard Bealing</b>	Assistant Head of Cultural Services in Kirklees Metropolitan Council	Successor to Phil Wood in the Council and developing two new Creative Town projects	<a href="mailto:richard.bealing@kirklees.gov.uk">richard.bealing@kirklees.gov.uk</a>
<b>Prof .John Thompson</b>	Professor of Entrepreneurship at the University of Huddersfield's Business School	Main link between CTI and the university	<a href="mailto:j.l.thompson@hud.ac.uk">j.l.thompson@hud.ac.uk</a>
<b>John Edmonds</b>	Director of Huddersfield Business Generator	Set up towards the end of CTI to manage a business incubator, a joint project between CTI and the university.	<a href="mailto:je@huddersfieldbg.co.uk">je@huddersfieldbg.co.uk</a>
<b>Brian Cross</b>	Director of ARTIMEDIA	The Director of a media-focused private company. The most important network and knowledge-transfer actor in the town. Active for 25 years and knows everyone. Key participant in CTI and post CTI activities	<a href="mailto:brian@artimedia.org.uk">brian@artimedia.org.uk</a>



## **Appendix 2: Interview Questionnaire to the manager of CTI (Phil Wood)**

### **1. The first knowledge spiral of cultural industries (in the early 1980s)**

#### **(1) Enabling conditions for knowledge creation**

Q1. You commented in the Creative City Conference 25<sup>th</sup> –27<sup>th</sup> May 2000 that “Historically the triggers to creativity have been crises”. Could you tell me concretely what kinds of “urban crises” Kirklees Metropolitan Council (KMC) and Huddersfield in particular faced during the early 1980s?

#### **(2) Knowledge acquisition**

Q2. When were you employed by KMC? Why was your post in KMC created in the early 1980s? What were your job descriptions?

### **2. The second knowledge spiral of cultural industries (in the late 1980s)**

#### **(1) Enabling conditions for knowledge creation**

Q3. You wrote in *Regional Review* (1996) that ‘*Kirklees Council underwent a radical restructuring in the late 1980s*’ and that ‘*I must highlight also the political courage shown by councillors who were prepared to lead from the front in terms of presenting their ‘Vision for Kirklees’, but at the same time were also ready to relinquish their grip on much of their traditional authority in order to empower both officers and potential partners in the community. This created the climate in which local culture could flourish and play its part in a wider regeneration strategy*’. What kind of a radical restructuring did KMC carry out? Why was this radical restructuring needed in KMC?

Q4. How did the radical restructuring in KMC contribute to the actions of the Cultural Services Department in KMC and of CTI in particular?

#### **(2) The knowledge spiral**

Q5. Please explain why and how a 1989 report called ‘A Chance to Participate’ was produced by CIK (Cultural Industries in Kirklees) (The background and process, type of organization and the way concepts were created etc.).

Q6. Please tell me about the background and development of the cultural policy ‘Made in Kirklees’.

### **3. The first knowledge spiral of CTI**

#### **(1) Phase1: Sharing tacit knowledge: The socialization mode**

Q7. You wrote in *Regional Review* (1996) that ‘*the role of the local authority is to first acknowledge and then work with these resources*’ and also spoke in the *Cultural Industries and the City Conference* (Manchester Metropolitan University in December 1999) ‘*If the development strategies are not embedded in the culture of the people, the people will not deliver their development strategies*’ How did you apply this idea to CTI?

Q8. How did you (or the Cultural Services Department in KMC) work with the cultural sector or media organizations in Huddersfield as an officer or assistant head of the Cultural Services Department? Give me historical backgrounds of the relationships with them, please.

- 1) Voluntary sector (such as the Proper Job Theatre Company, Beaumont Street Studios, the Media Centre, Sonic Arts Network, the University of Huddersfield and Leeds University)
- 2) Private sector (such as Artimedia, Interactive Solutions and Comedia (Charles Landry) and Lee Corner)
- 3) Other private companies

Q9. Did you ask for ideas from community or voluntary sector organizations when you were making the CTI proposal? If so, please give me some examples.

**(2) Phase2: Creating concepts: The externalization mode**

Q10. It seems that the main concept which underpinned the CTI proposal was the 'Creative Town'. Who created this concept? How and under what kind of occasions, did CTI come up with this idea? Did you (or other members of CTI) have any particular experiences which gave you a chance to come up with this idea?

Q11. What kind of role did Charles Landry (a consultant) or his idea mainly play in making the CTI proposal? What did he do exactly?

**(3) Phase3: Justification**

Q12. Was there any stage at which the concept of the 'Creative Town' and the strategic framework of the cycle of urban creativity were approved (or 'justified') by some higher level organizations (such as KMC and Huddersfield Pride) before submitting the proposal to the European Commission? If so, when, where and how? Were there any modifications of the proposal at the stage? If so, why and how? (What were the criteria for this?)

Q13. When did you first present the CTI proposal (including the vision, strategic framework and programmes) to other members of CTI? How did they react? Were there any objections and modifications to the proposal at the stage?

**(4) Phase4: Building an archetype: The combination mode**

Q14. How did you choose the (15) individual programmes in CTI? Were there any (strategic) criteria used to choose the programmes?

Q15. Who generated the projects such as Create!, Advisory Service for Inventors, Creative forum, Creative Investment Services, Innovative Challenge Forum (which did not work)? Did you apply Q8's principles to these projects?

Q16. Did the strategic framework of the cycle of urban creativity and the individual programmes reflect the commitment and vision of key members of CTI? If so, tell me

what it was like? What kinds of things did they discuss with each other?

**(5) Phase5: Cross-levelling knowledge: The internalization mode**

Q17. What kind of impact did CTI have on the town (and the region and beyond)?

Q18. Were there any impacts of CTI itself on the CTI programme delivery organizations?

Q19. In gaining approval for CTI, did CTI successfully attract new and additional resources to Huddersfield? If so, please give me concrete explanation of this.

**4. Enabling conditions for knowledge creation in the first knowledge spiral of CTI**

**(1) The first condition: Organizational intention**

Q20. Did the approval criteria of Urban Pilot Programmes (UPPs) have an effect on the direction of the CTI proposal (especially the concept of the 'Creative Town')? If so, how?

Q21. Did you find any difference between UPPs and other funds (such as SRB) in having an effect on the proposal direction?

Q22. Did Huddersfield Pride as its own host body in general, and its strategic vision in particular, have an effect on the direction (e.g. creative thinking) of the CTI proposal?

**(2) The second condition: Individual autonomy and group autonomy**

Q23. To what extent did the Council, Huddersfield Pride and the EC (UPPs) allow CTI to act and think autonomously?

Q24. Did the restructuring of the local authority enable CTI in general, and you (the manager of CTI) in particular, to act with *autonomy*? If so, please give me some examples.

**(3) The third condition: Crisis (Fluctuation / creative chaos)**

Q25. Were there any 'crises' which people associated with the Cultural Services Department faced when (before) making the CTI proposal?

**(4) The fourth and fifth conditions: Requisite variety and information redundancy**

Q26. Do you think members of CTI were diverse in their backgrounds? If so, please explain this.

Q27. During the CTI proposal process, how often did members of CTI meet and discuss the contents of the programmes?

Q28. How was each CTI project created? (Individually or Collectively?)

**5. The second knowledge spiral of CTI**

Q29. Which programmes in CTI were successful?

Q30. Which programmes in CTI were less successful? Why do you think this was?

Q31. About how many times were the members (or deliverers) of CTI brought together to discuss the inter-connection between the programmes as assumed in the strategic framework of the 'cycle of urban creativity'?

Q32. Did the 'cycle of urban creativity' work well? Why did this happen?

Q33. After implementing the CTI programmes, were there any collaborative projects generated between the voluntary organizations in CTI?

**THANK YOU VERY MUCH FOR YOUR COOPERATION**

## **Appendix 3: Interview Questionnaire to the officer for Economic Development in the Kirklees Metropolitan Council (Sean Leonard)**

### **1. The first knowledge spiral of CTI**

#### **(1) Phase 1: Sharing tacit knowledge: The socialization mode**

Q1. When CTI actually started preparing for the proposal, what kind of people (and how many) attended meetings for this?

Q2. Tell me about the atmosphere and processes of the meetings in making the CTI proposal.

Q3. What kind of role did you mainly play in making the CTI proposal? What did you do exactly? How did you work together with members of CTI?

#### **(2) Phase 2: Creating concepts: The externalization mode**

Q4. In those meetings, what kind of ideas did CTI come up with and how did this occur?

Q5. It seems that the main concept which underpinned the CTI proposal was the 'Creative Town'. Who created this concept? How and under what kind of occasions did CTI come up with this idea? Did you (or others) have any particular experience which gave you a chance to come up with the idea?

#### **(3) Phase 4: Building an archetype: The combination mode**

Q6. Were there any programmes of CTI which you produced? If so, what were they?

Q7. Were there any programmes which did not work? If so, why didn't they work well?

Q8. What did Charles Landry do in making the CTI proposal?

Q9. Could you describe ADAPT, a programme of Beaumont Street Studios (BSS)?

Q10. What was MIDAS (a programme of BSS)?

Q11. Were there any connections between the programmes delivered by BSS and those by other CTI organizations?

Q12. Did the idea of the cycle of urban creativity work? If not, why didn't it work well?

#### **(4) Phase 5: Cross-levelling knowledge: The internalization mode**

Q13. What kind of impact did CTI have on Huddersfield?

Q14. Did CTI change the direction of the cultural sector in Huddersfield?

## **2. Enabling conditions for knowledge creation in the first knowledge spiral of CTI**

Q15. Why did the CTI movement occur to Huddersfield? What factors facilitated CTI?

### **(1) The first condition: Organizational intention (knowledge vision)**

Q16. Did the approval criteria of Urban Pilot Programmes (UPPs) have an effect on the direction of the CTI proposal (especially creating the concept of the 'Creative Town')? If so, how?

### **(2) The second condition: Individual and group autonomy**

Q17. Did the restructuring of the local authority enable CTI to act with autonomy? Please provide examples.

Q18. Did you find any difference between the UPPs and other ordinal funds (such as SRB) in having an effect on the proposal direction?

### **(3) The third condition: Crisis (Fluctuation / creative chaos)**

Q19. Were there any 'crises' which the people around the Cultural Services Department faced when (before) making the CTI proposal?

### **(4) The fourth and fifth conditions: Requisite variety and information redundancy**

Q20. Were the backgrounds of the members of CTI diverse?

Q21. Did any of CTI members have over-lapping job descriptions in making the CTI projects?

Q22. What kind of relationships did BSS build with the other organizations in CTI (such as CIDA)?

## **3. The second knowledge spiral of CTI**

Q23. During the implementation of the CTI programmes, were there any collaborations with the member organizations of CTI. If so, did this work?

Q24. How did BSS participate in the showcase programme created by CIDA? What kind of relationships did BSS have with CIDA?

THANK YOU VERY MUCH FOR YOUR COOPERATION

## **Appendix 4: Interview Questionnaire to the manager of CIDA (the Creative Industries Development Agency) (Anamaria Wills)**

### **1. The first knowledge spiral of CTI (Personal background)**

Q1. When and why did you join CTI?

Q2. What did you do before joining CTI?

Q3. When you joined CTI, what did you feel about the structure of members?

Q4. Did you find any particular areas of excellence or lack in the CTI projects?

Q5. What did you feel about the application of the cycle of urban creativity in CTI?

### **2. The second knowledge spiral of CTI: The showcase programme**

Q6. When you joined in CTI, you became the project manager of 'Create!' 'Creative Forum' 'Innovative Challenge' and 'Advisory Service for inventors'. Is that right? Why was this? Why didn't the 'shop-window' (Create!) project materialize and become CIDA?

#### **(1) Phase 1: Sharing tacit knowledge: The socialization mode**

Q7. When you joined CTI as a newcomer, did you share the feelings or perspectives on training programmes with other members of CTI? If not, did you take actions to share the same perspectives with others?

Q8. How did you cooperate with the cultural sector or media organizations in Huddersfield such as the Proper Job Theatre Company, Beaumont Street Studios, and Artimedia? Describe your relationships with them, please.

Q9. In order to develop the showcase programme, what did you actually do? What kind of role did you mainly play and what kind of activities were you responsible for in making it?

#### **(2) Phase 2: Creating concepts: The externalization mode**

Q10. How did you come up with the idea of the showcase programme? How did you develop the idea of the showcase programme? (The way of creating concepts etc.)

Q11. Did you (or others) have any particular experience (in your career) which gave you the chance to come up with the idea of the showcase programme (and CIDA)?

Q12. Was the initial idea of CIDA only your own idea or did someone else help or expand it?

**(3) Phase 4: Building an archetype: The combination mode**

Q13. Describe the contents of the showcase programme.

Q14. Were there any differences between the existing training programmes in CTI and the showcase programme?

Q15. Were there any collaborations with the other voluntary organizations in CTI in the showcase project? If so, what kind of relationships were there? Were they successful collaborations?

**(4) Phase 5: Cross-levelling knowledge: The internalization mode**

Q16. What kind of impact did the showcase programme (and CIDA) have on Huddersfield, and its creative sector in particular?

**3. The five conditions for knowledge creation in the second knowledge spiral of CTI**

**(1) The first condition: Organizational intention**

Q17. Do you think the approval criteria of the Urban Pilot Programmes (UPPs) had an effect on the direction of the design of the showcase programme? If so, how?

Q18. Do you think CTI and its concept in particular had an effect on the direction of the design of the showcase programme? If so, how?

**(2) The second condition: Individual and group autonomy**

Q19. Do you think CTI gave sufficient autonomy to CIDA to design the showcase programme?

**(3) The third condition: Crisis (Fluctuation / creative chaos)**

Q20. Were there any 'crises' which you (and CIDA) faced before or during joining CTI and designing the showcase programme?

**(4) The fourth and fifth conditions: Requisite variety and information redundancy**

Q21. Were there anyone over-lapping job descriptions between the members of CTI and CIDA in designing the showcase programme?

THANK YOU VERY MUCH FOR YOUR COOPERATION